DOCUMENT RESUME

ED 375 218 UD 030 114

TITLE	Small Schools' Operating Costs: Reversing Assumptions about Economies of Scale.
INSTITUTION	Public Education Association, New York, N.Y.
SPONS AGENCY	EXXON Education Foundation, New York, N.Y.; New York Community Trust, N.Y.
PUB DATE	Dec 92
NOTE	111p.; For related documents, see UD 030 113-115.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC05 Plus Postage.
DESCRIPTORS	Academic Achievement; Administration; *Cost Effectiveness; Educational Change; Educational Facilities Design; Effective Schools Research; Elementary Secondary Education; Nontraditional Education; *Operating Expenses; Outcomes of Education; Public Schools; Resource Allocation; School Restructuring; *School Size; *Small Schools; Teacher Participation; *Urban Schools
IDENTIFIERS	*Economies of Scale; *New York City Board of Education; Reform Efforts

ABSTRACT

This volume addresses the feasibility of operating small schools as the mainstay of the public school system. Research evidence indicates that small schools are associated with better student outcomes and that they make personal attention, academic focus, and experiential curricula possible. The premise that small schools are more expensive has always been false. No research evidence supports the claim that large schools of the sizes found in New York (1,500 to 4,000 students) achieve operational-cost efficiencies sufficient to justify their existence or to offset their educationally damaging inefficiencies. Studies show penalties of scale in large schools, and disproportionate increases in management costs. Small schools are economically feasible for New York City if barriers to change are overcome. Strategies are proposed for direct cost savings through restructuring and additional teacher involvement. Seventeen tables and two figures illustrate the discussion and provide cost figures. Five appendixes present additional detail, and a sixth comprises a 71-item bibliography. (Contains 46 references.) (SLD)

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Small Schools' Operating Costs:
Reversing Assumptions About Economies of Scale

UD030114

A REPORT OF THE PUBLIC EDUCATION ASSOCIATION

December 1992

REPORTS OF THE PUBLIC EDUCATION ASSOCIATION

1981 - 1992

* **Advocacy and Architecture**, by Jeanne Frankl in **New Schools for New York: Plans and Precedents for Small Schools.** Architectural League of New York and Public Education Association (Princeton Architectural Press, 1992).

* **Small Schools' Operating Costs: Reversing Assumptions About Economies of Scale**, by Susan E. Heinbuch, Ph.D. and Jeanne Frankl, edited by Alice Smith Duncan. December, 1992.

* **Small Schools and Savings: Affordable New Construction, Renovation and Remodeling**, researched by Diane Dolinsky under the direction of Jeanne Silver Frankl, edited by Alice Smith Duncan and Monte Davis. December, 1992.

Common Agendas: Collective Bargaining Between School Districts and Teacher Unions. A Work in Progress, by Jeanne Frankl and Kym Vanderbilt. October, 1991.

Hidden Costs: Teacher Absence in the NYC Public Schools, by Barbara Falsey, Ph.D., October, 1991.

Effective Elementary Schools, by Eileen Foley, Ph.D. 1991.

* **Restructuring Neighborhood High Schools: The House Plan Solution**, by Diana Oxley, Ph.D., Project Director, and Joan Griffin McCabe. June, 1990.

* **Making Big High Schools Smaller**, by Joan Griffin McCabe and Diana Oxley, Ph.D. January, 1989.

* **Description of Middle School Initiatives in Four Districts for the Middle School Task Force Recommendations Advocacy Project**, by Charol Shakeshaft, Ph.D. July, 1989.

* **Effective Dropout Prevention: The Case for Schoolwide Reform**, by Diana Oxley, Ph.D. 1988.

The Moderation of Stress in the Lives of the Students of an Urban Intermediate School: A Project to Coordinate Research and Environmental Intervention. Final Report of the Project on Academic Striving, by Joseph C. Grannis, Ph.D., Project Director, Mary Ellen Fahs, Ph.D, with Wanda L. Bethea, M.Ed. May, 1988.

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Special Education Reform: Prepare All Teachers to Meet Diverse Needs, by Constancia Warren, Ph.D. May, 1987.

* INDICATES TITLE RELATED TO SMALL SCHOOLS

Continues on inside back cover ...

SMALL SCHOOLS' OPERATING COSTS:

Reversing Assumptions about

Economies of Scale

A Report of the Public Education Association

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This project was funded by grants
from the Exxon Education Foundation
and the New York Community Trust

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SMALL SCHOOLS' OPERATING COSTS

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EXECUTIVE SUMMARY

"Small Schools' Operating Costs: Reversing Assumptions about Economies of Scale" addresses the feasibility of operating small schools -- not just as occasional, "special" or "alternative" options, but as the mainstay of our public school system. This report is a companion to the Public Education Association's study of small school construction costs ("Small Schools and Savings: Affordable New Construction, Renovation and Remodeling," PEA, 1992), which demonstrates that economy-of-scale arguments for constructing large schools have been neither sufficiently examined nor proven in practice.

The Public Education Association strongly endorses and pursues a move to smaller schools in New York City. The research evidence is clear: Small schools are associated with higher student outcomes. In smaller settings, it is possible to provide the personal attention, academic focus and experiential curricula that facilitate academic achievement by all students, especially those from impoverished backgrounds. The City's school system has begun to accept this idea, but still resists a widespread move to smaller schools on economic grounds. Our research shows that by combining small size with better staff utilization and programming, small schools can be eminently affordable.

The premise that small schools are more expensive to operate has always been false. Research in an educational setting has specifically disproved the economy-of-scale argument at all but a very limited range of school sizes. And no research evidence supports a claim that large schools of the size found in New York City (e.g., 1500-4000 or more) achieve operational-cost scale efficiencies significant enough to justify their existence or to offset size-related, educationally damaging inefficiencies.

On the contrary, studies show dis-economies (penalties) of scale in large schools. Difficult to manage efficiently and safely, large schools require a disproportionate increase in management; an extra "layer" of managers -- subject supervisors, assistant principals, deans, additional secretaries -- separates principals and teachers.

In small schools the whole school environment changes, yielding advantages and economies derived from increased collaboration among staff, reduced supervisory needs, and increased efficiencies. The complexity of administrative tasks is reduced, whether in planning a schedule, the curriculum, evaluation, or coping with student problems. Face-to-face interaction substitutes for generating and responding to memos.

Research for this report, including an analysis of staffing costs, identified a number of organizational factors that reduced costs:

- reduced or reoriented roles for middle management, most notably assistant principals for supervision;
- more efficient use, with consequent proportionate reduction, of clerical staff;
- teacher- and classroom-based guidance;
- cross-teaching and/or teacher-sharing;
- simplified and interdisciplinary curricula;
- reduced need for building security services;
- simplified monitoring;
- cost-efficient multi-school sites and houses.

Small schools' economies, gained entirely in administrative and support services, do not affect the classroom. Indeed, experience in New York City shows that by conventional and advanced measures, small alternative high schools better educate the same students as our most troubled zoned high schools. Many students at alternatives earn more credits over the course of a year than do their counterparts -- or than they, themselves did -- in comprehensive high schools.

After years of practical experience, many veteran New York City educators feel the alternatives' model should be the rule rather than the exception. An initiative by Schools Chancellor Joseph Fernandez to create 30 new small schools in three years gives implicit endorsement to that view.

The report therefore concludes that the small schools which research shows to be best for most children are feasible as the wave of the future -- the near future -- for New York City public education. Nevertheless, PEA is not completely confident that the system is ready to make the sea change in current practice that this shift would require.

One reason, certainly, is the barrier to change posed by the physical structure of not only the existing school plant but new and modernized schools on the drawing board. There needs to be a change in the way our schools are built, designed and redesigned before the city can have the many small schools it needs.

Another necessary initiative will be to tackle the web of vested interests in traditional ways of doing things and, to a lesser extent, the state and local rules, regulations and union practices that inhibit the leaner staffing that makes small schools affordable. The report emphasizes the importance of appraising this aspect of the problem carefully and sympathetically.

A new perspective is needed; it must be promoted and cultivated, listening to the people who will be involved in implementing change as well as garnering their interest in the opportunity for greater gratification that better, more effective schools will afford.

With these premises in mind, the report makes the following recommendations:

- ▣ The City School District should convene unions, community school boards, district superintendents, parent and school advocates for discussions looking toward a widespread move to smaller schools and sub-schools:
  - Discussions should focus on the value, feasibility, and implications for personnel and curriculum policies of such a move;
  - They should use the devices of forums, focus groups, hearings and rallies to promote needed initiatives.
- ▣ The Board of Education should analyze and discuss publicly the fiscal implications of moving to more small schools, taking account of issues including but not limited to:
  - direct cost savings realized through the small schools staffing patterns and programming strategies described in this study;
  - other savings achieved by improving the climate of the school, as, for example, reduction in costs of deans, security services, metal detectors;

- potential long-term cost benefits of improved school climate and outcomes, including better attendance, lower dropout rates, greater student achievement, increased staff gratification, etc.

◘ The Board of Education and representatives of high school regions and community school districts should work together with teacher and supervisory unions, as well as the State Education Department, where appropriate, to address the personnel issues that a move to smaller schools will provoke. Among other things they should:

- Develop new regulations and contract provisions that redefine the roles and options for supervisory service, by, for example:
    - Increasing the proportion of school heads or principalships relative to intermediate supervisory positions;
    - Arranging for APs-supervision to serve a number of small schools or sub-schools in an itinerant or advisory capacity;
    - Increasing, enhancing and diversifying the teaching, guidance, staff development and other responsibilities of APs-supervision;
    - Instituting new staff development programs that support current supervisors in assuming new roles;
    - Cooperating with universities to develop programs that prepare potential supervisors to assume new roles.
- Revise rules, regulations and contract provisions to endorse and encourage teachers' new roles in small school planning, student advising and guidance, curriculum development, staff evaluation, etc., by, for example:
    - Developing career ladders that acknowledge special skills and competencies;
    - Eliminating contractual restrictions on teacher participation in evaluation;

- Ensuring that certification requirements require teachers to fulfill multiple roles, teach more than one subject and participate in interdisciplinary programs;

- Instituting new staff development programs that support current teachers in assuming new roles;

- Cooperating with universities to develop programs that prepare future teachers to assume new roles and meet new certification requirements;

- Providing more school level discretion in staff recruitment and selection, to match schools with congenial staff;

- Developing strategies for sharing teachers of low demand subjects among different schools or houses.

ACKNOWLEDGMENTS

While the conclusions of this report are those of the research and writing team, we are greatly indebted to the many people whose experience and expertise informed the work and verified our hypotheses.

Particularly helpful were the school professionals who submitted to Susan Heinbuch's extensive interviews and, in many cases, remained available for further questions. Those mentioned below once again proved our contention that there are no school people like the dedicated professionals in New York.

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A number of good friends from the New York City school system were kind enough to read a draft of the report and/or participate in a roundtable discussion of the next-to-last-draft. The final edition and recommendations profited greatly from their wisdom. In addition to Seymour Fliegel, Gerald Freeborne, Beverly Hall, Heather Lewis and Deborah Meier, already mentioned, they included Anthony Alvarado, superintendent, CSD 2; Felton Johnson, superintendent, CSD 9; Paul Schwarz, assistant principal, Central Park East Secondary School; Jacqueline Ancess, Center for Collaborative Education; Coleman Genn, senior fellow, Center for Educational Innovation; Blossom Gelernter, former principal, PS 234; and Anna Switzer, principal, PS 234.

Colleagues also deserve our thanks. At PEA, Judith Baum, Director of Information Services, was generous in helping gather data and think through issues. Eileen Foley of the New York City Comptroller's office shared her expertise in alternative schools. Joan Carney of the Coalition of Essential Schools and Raymond Domanico of the Center for Educational Innovation contributed the perspective of fellow small schools advocates as did Heather Lewis of the Center for Collaborative Education, who added the insights of her membership on Community School Board 15.

Jeanne Silver Frankl
Executive Director
Public Education Association
December 1, 1992

INTRODUCTION

It is the purpose of this report, "Small Schools' Operating Costs," to question and challenge the assumption that the operating costs of small schools are prohibitively expensive and therefore unaffordable. Our theme is flexible adaptation of traditional structures. This study is presented as a complement to a concurrent Public Education Association study, "Small Schools and Savings: Affordable New Construction, Renovation and Remodeling,"[*] which addresses the capital costs of school planning and construction.

"Affordable" does not necessarily imply less cost. It does, however, imply cost within the range incurred in currently prevalent large schools. Policy makers are reluctant to increase current costs, even if those will yield long-term savings. The affordable approach seeks to present the tangible possibility of smaller schools.

A mass of evidence demonstrates that small schools, by creating a sense of community and caring relationships in which students feel more accountable, more significant, and more likely to participate in class and extracurricular activities, provide the best learning environments for students. It has been well documented (see Bibliography of Small Schools Research, attached as Appendix 6) that smaller schools are particularly important in urban settings where the public school student population is primarily poor and made up of racial or ethnic minority groups. As Robert Crain's 1986 study of high schools found, "The data indicate that size is of critical importance in black schools, so much so that reducing high school size should be of highest priority in cities serving large black populations."[1]

In its advocacy for a move toward smaller schools, the Public Education Association also supports the importance of school autonomy and acknowledges the vital role of each school's principal. A principal with vision and a strong commitment to students makes a critical contribution to achieving an effective school. Many people believe, as does PEA, that the principal's job is much more difficult, if not impossible, in a large school.

---

[*] see Bibliography, attached, under Dolinsky and Frankl; PEA, 1992.

"Small Schools' Operating Costs" presents a significant body of opinion and specific suggestions, solicited through interviews and research conducted over a ten-month period in 1990 and 1991, that small schools can be affordable and, in some respects, less expensive (e.g. through administrative reorganization and functional redefinition) than larger schools in New York City.

While many of our findings apply to all school levels, elementary through high school (particularly the findings concerning scheduling and more efficient use of personnel), a significant number speak directly to New York City high schools.

Additionally, a number of findings are based on the demonstrated successes of alternative high schools in New York City. Alternatives were originally conceived as a special response to young people who would not or could not flourish in the City's larger, conventional settings. However, alternative school programs are in line with current educational thinking that schools should be more personal, cooperative and encourage experiential learning.

Further, many alternatives have turned toward interdisciplinary curricula and/or follow the "less-is-more" approach to curriculum of Theodore Sizer -- i.e., more time devoted to less material, focusing on smaller numbers of specific disciplines such as math, science, English and history. Thus, their strategies are apt models for the larger system.

We conclude that by combining small size with better staff utilization and programming, much can be done to achieve more effective, affordable schools. Funded at approximately the same levels as larger schools, they will be far more cost effective.

I. THE NEED FOR SMALLER SCHOOLS

It is not the purpose of this report to remake the case for small schools; that has been made, repeatedly and convincingly, by many researchers over many years (again, see Bibliography of Small Schools Research, Appendix 6). The research evidence is clear: Small schools are associated with higher student achievement, and large schools have numerous problems of types observed much less often in smaller schools.[2]

In an urban setting such as New York City, a move toward small schools has an even greater value. The City's public school system educates almost one million children (Table 1), the vast majority of whom are poor and minority, and for many of whom English is a second language (Table 2). The number and type of problems faced by disadvantaged urban youth are well known: single-parent household structures and higher rates of family dysfunction, drug abuse and addiction, teen pregnancy, violent crime, homelessness, AIDS.

Small schools research is consistent with the views and experiences of many educators, including those of interviewees cited in this report: In smaller settings, it is possible to provide the personal attention, academic focus and experiential curriculum that make it possible to facilitate academic achievement by students from impoverished backgrounds.

Table 1

New York City Public Schools
Student Distribution
by School Level
(1988-1989)

School Level	Number Students	Percent
Elementary	475,976	50.8 %
Junior High	184,989	19.7
High School	261,097	27.9
Special Ed Schools	15,186	1.6
Total	937,248	100.0 %

Source: New York City Board of Education.

Table 2

Characteristics of New York City Public School Student Population

Ethnicity

	1986-1987		1988-1989		
	Number Students	Percent	Number Students	Percent	Percent Change
Black	358,254	38.1%	359,903	38.4 %	+0.3%
Hispanic	318,431	34.0	321,476	34.3	+0.3
White	200,089	21.3	186,512	19.9	-1.4
Other	62,368	6.6	69,357	7.4	+0.8
Total	939,142	100.0%	937,248	100.0%	

	1988-89	
	Number Students	Percent
In Early Childhood Programs	72,276	7.7%
Supported by Public Assistance	279,939	29.9
Limited Eng. Proficiency-Gen. Ed.	94,839	10.1
Special Education Students	115,575	12.3
Receive Chapter I assistance	117,876	19.0[a]
		79.0%

Sources: New York City Board of Education, Division of High Schools,
New York City Board of Education, "Middle School Task Force Report" (1988),
and New York City Board of Education, "Rebuilding Our Schools, 1988/89."
a: 1985-1986

Table 3 provides a summary of some research findings concerning the effects of large schools on student, teacher and school outcomes. As these findings reveal, large schools are less safe and have more disruptive environments; students and teachers have less interpersonal involvement; students have less extracurricular involvment, have difficulty making friends, and attain lower levels of academic achievement.

Table 3

Impacts of Increased School Size

Researcher	Year	Outcome
Chubb & Moe	1990	Lower academic performance on SATs
Sorenson	1987	Difficulty in monitoring student progress; students tend to take courses of study beneath their ability
Gottfredson	1985	Negative perceptions of school safety
Gottfredson	1985	Negative perceptions of a school's administration
Goodlad	1984	Hampers effective school functioning
Boyer	1983	Hampers effective school functioning
Oxley	1982	Dropout risk
Oxley	1982	Disruptive school environment
Garbarino	1978	Vandalism and violence
McPartland & Dill	1976	Vandalism and violence
Grabe	1975	Noninvolvement in extracurricular activities
Coleman et al.	1974	Depersonalization
Loughrey	1972	Low morale among staff
Heath	1971	Reduced teacher contact with students
Turner & Thrasher	1970	Noninvolvement in extracurricular activities
Baird	1969	Noninvolvement in extracurricular activities
Wicker	1969	Noninvolvement in extracurricular activities
Tamminen & Miller	1968	Dropping out
Tamminen & Miller	1968	Weak student guidance
Plath	1965	Rule infractions
Kleinert	1964	Noninvolvement in extracurricular activities
Tyson	1957	Reduced teacher contact with students
Larson	1949	Difficulty in making friends

Note: Excerpted and Supplemented from: "Effects of School Size: A Bibliography"
by Diana Oxley, Ph.D., Public Education Association and Bank Street College

Conversely, a 1989 study of 343 urban elementary and middle schools in Chicago found that small school size was the second most important factor in student achievement after family income level.[*] And a 1991 survey of some 13,000 Chicago urban elementary school teachers found school size to be the single most important factor related to how teachers embrace school reform -- more important than achievement levels, racial composition of a school, the student mobility rate, and the concentration of low-income students.[**]

The Public Education Association strongly endorses and pursues a move to smaller schools in New York City. Based on extensive research and experience, PEA has urged that enrollments for New York City public schools should be capped at: 300-500 for elementary schools, 300-750 for intermediate schools and 750-1200 for high schools.[***]

A summary of the recommendations of a number of studies and reports on optimal school sizes to reduce negative outcomes associated with large schools is presented in Table 4, on the following page.

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[*] see "Examining the Effects of Intra-District Variation on School Size and Resources," March 1989, Chicago Panel on Public School Policy and Finance.

[**] see "Charting Reform: The Teachers' Turn," October 1991, a survey sponspored by The Consortium on Chicago School Research.

[***] Some participants in a PEA-convened November 1991 roundtable on small schools affordability argued that even these figures are too high.

Table 4

What Size Should An Effective School Be?

Source	Publication Name	Year	Recommendation
Elementary			
NYC-BOE[a]	Design For Academic Progress	1983	15-20[c]
Goodlad	A Place Called School	1984	300-400
Middle			
NYC-BOE	Design For Academic Progress	1983	800
NYC-BOE	Middle Schools Task Force	1988	600-750
Goodlad	A Place Called School	1984	400-600
SR/JR			
Goodlad	A Place Called School	1984	500-600
Secondary			
NYC-BOE	Committee Recommendations to the Superintendent of Schools	1965	600[d]
NYC-BOE	Task Force Report on High School Redesign	1971	150[d]
Coleman	Youth: Transition to Adulthood - Report of the Panel on Youth of the President's Science Advisory Committee	1974	500
Stanton, Legget & Assoc.	Planning Flexible Learning Places	1977	2000 with 250[d]
PEA[b]	Towards School Improvement: Lessons from Alternative High Schools	1982	800-1200
NYC-BOE	Design for Academic Progress	1983	2000 with 1200[d]
Goodlad	A Place Called School	1984	800
PEA	Effective Dropout Prevention The Case for Schoolwide Reform	1988	500-1500[e]

Source: Public Education Association, Internal memo: December 1988.

a: NYC-BOE = New York City Board of Education
b: PEA = Public Education Association
c: Class Size
d: Subschool Size
e: With Subschool/House Plan Organization

II. NATIONWIDE RESEARCH BELIES "ECONOMY-OF-SCALE" ARGUMENT

Despite the convincing evidence and growing awareness of the need for smaller schools, we are nevertheless not getting them. The argument against reducing school size most frequently made by educational policy makers is based on an alleged "economy of scale" realized by building larger: that the per capita cost of both constructing and operating schools declines as size increases. In other words, small schools would be expensive.

In this report's companion study, "Small School and Savings: Affordable New Construction, Renovation and Remodeling" (PEA, 1992), the Public Education Association establishes that economy-of-scale arguments for construction costs can be questioned, and demonstrates that they have been neither sufficiently examined nor proven in practice.

For the present report, PEA sought to determine the soundness of traditional economy-of-scale arguments in relation to operating costs, to see if they legitimately stand in the way of a move toward smaller schools. Further, we solicited examples and suggestions of ways in which smaller schools can be operationally affordable.

A. Research

As applied to school operating costs, economy-of-scale arguments are associated with a traditional view of education in terms of curriculum breadth, guidance interventions and a top-heavy administrative configuration. Under this view, small schools would be more expensive to operate because the need for courses, subject specialists, middle management, guidance counselors, custodial and security services would not decline proportionally with decreased school size.

Actually, even under traditional models of school organization, research demonstrates that large schools rarely enjoy economy of scale beyond a certain size. Moreover, knee-jerk acceptance as "fact" of "additional expenses" believed to be associated with smaller schools apparently has allowed educational policy makers to overlook potential or existing offsetting savings (such as those long observed in alternative schools in New York City; we will elaborate later in this report that traditional organizational structures are not one with current educational goals).

The premise that small schools are more expensive to operate has always been false: The economy-of-scale argument has been specifically disproved by research in an educational setting (see Table 5, below). Although there is evidence to suggest that operational-cost economies may exist within some school size range, no research evidence supports a claim that large schools of the size found in New York City (eg. 1500-4000 or more) achieve operational-cost scale efficiencies significant enough to justify their existence or to offset other related, educationally damaging inefficiencies.

Table 5 presents the findings of a number of research studies conducted over almost two decades, focused on school size and operational costs.

Table 5

Optimal School Size For Achieving
Operational-Cost Scale Efficiency

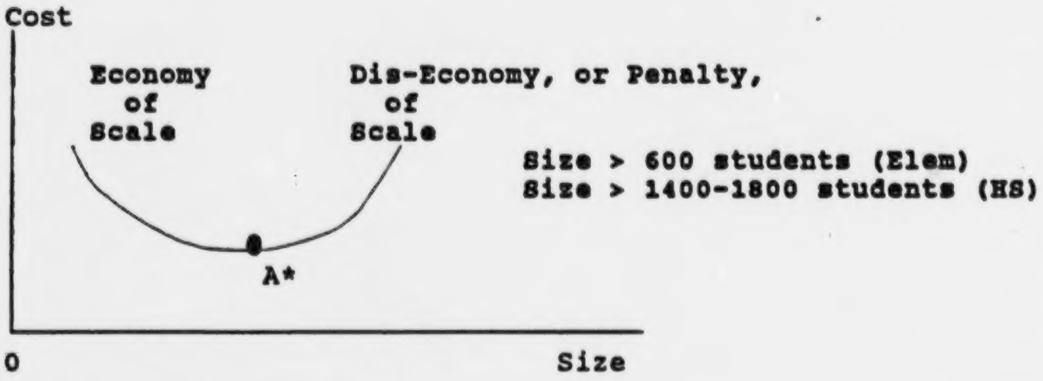
RESEARCHER	YEAR	OPTIMAL SIZE
Riew	1966	1675[a]
Cohn	1968	1500
Hettich	1968	300[b]
Hettich	1968	600[a]
Osburn	1970	1500
Goishi	1971	488[a]
Katzman & Osburn	1971	1400-1800[a]
Johnson	1972	1426
White & Tweeten	1973	675[c]
Hough	1975	1200
Hind	1977	600[b]
Butel & Atkinson	1983	1147

a: operational costs of high schools
b: elementary schools only
c: includes transportation costs in its analysis

The studies reviewed in Table 5 suggest that the cost curve associated with size is U-shaped (Figure 1, below) under a traditional school organization. The U-shape suggests that there is a minimum point, the bottom of the curve A*, up to which schools enjoy economy of scale. Beyond that point schools experience dis-economies -- in effect, penalties -- of scale, i.e., as schools get larger, per-unit costs actually increase. Size economies were found to exist over a limited range of student populations. In other words, at the extreme, the largest operationally cost-efficient-size high school was 1800 students; for an elementary school, it was 600 students.[3]

Figure 1

Research Finds U-Shaped Operational Cost Curve


Cost
Economy of Scale
Dis-Economy, or Penalty, of Scale
Size > 600 students (Elem)
Size > 1400-1800 students (HS)
A*
0
Size

Based on research cited in Table 5

A nationwide study of 730 public high schools also found that operational costs increased when school sizes rose beyond 500-to-999 students, on average. Table 6, on the following page, presents data that highlights the U-curve in per-pupil allocations from this study.[4]

Table 6

Annual Per Pupil Allocation in Public High Schools by Size (dollars in thousands)

SCHOOL SIZE	Per Pupil Allocation $	Sample Size
< 100	2.52	(13)
100-299	1.91	(43)
300-499	1.87	(46)
500-999	1.88	(146)
1000-1499	2.06	(177)
1500-1999	2.05	(147)
2000-2999	2.13	(140)
3000 or more	2.36	(18)

Source: Coleman and Hoffer (1987).

A review of more than 30 empirical studies on economy of scale in education drew the following conclusion: **"Essentially all of the studies suggest that dis-economies will occur for large size schools...."**[5]

The consistency of finding a U-shaped cost curve -- whether the studies were of rural, suburban or urban schools, or all three; by school level; of state-wide, or district-wide schools; and regardless of whether schools were located in the Northeast, Southwest, Southeast, or Northwest -- convincingly suggests that from a strictly operational-cost perspective, **most schools in New York City are too large and therefore cost inefficient.**

B. Explanation

While finding the optimal cost-size relationship for a specific school can be difficult[6], research does provide some guidelines. Specifically, the reviewed studies suggest the primary explanation for large school dis-economies to be **"because of offsetting increases in management costs."**[7]

Larger schools incur some additional costs simply because they are large. For example:

> **1) Large schools have been associated with more significant incidents of violence and vandalism.[8]**
>
> In New York City high schools, the role of Dean is responsible for maintaining student safety, security and discipline. The role is filled by a teacher, who receives compensatory time off that must be covered by additional teachers. Both prevention and consequences are costly. For example, these schools also employ disproportionately more security staff than small schools, some of which dispense with security guards entirely.
>
> **2) Managing a large school results in more paperwork (e.g., more individuals responding to and initiating more memoranda).**
>
> This results in a disproportionately higher need (and budgetary percentage) for secretarial support. For example, one New York City high school of 2360 students devotes 4.5 percent of its total tax-levy unit allocation[*] to secretaries -- whereas secretarial support for one alternative school of 483 students uses only 2 percent of its tax-levy unit allocation.[9]
>
> **3) The move to giant schools, in an excessive response to James B. Conant's 1958 call for curriculum breadth in high schools[**], resulted in the creation of too many subject-specialized departments and an overblown hierarchical structure.**
>
> The currently observed hierarchy of subject "heads" -- department chairs or subject specialists/experts -- is very expensive. It is important to note that while Conant's work suggested that a school size of 400 students was the minimum

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[*] The term "tax levy unit allocation," as used here and following, refers to the formula by which public funds are distributed in New York City high schools. Each tax levy unit is equal to an average teacher's salary. As of March 1989, for example, using a teacher's salary as 1, a principal's salary translated to 1.35 units, a secretary's to .67 units.

[**] See Conant's The American High School Today, A First Report to Interested Citizens.

necessary to achieve curriculum breadth, and that 750 students was more appropriate to the task, more recent work and data show that from a curriculum-offering point of view, "little is to be gained by increasing school size beyond 400."[10]

III. COMPARATIVE COSTS OF SMALL AND LARGE SCHOOLS IN NEW YORK CITY

While most of New York City's public schools are larger than recommended for reaching educational goals, there are examples of small schools and small school units that afford a basis for comparing costs of small and large schools in the city.

Alternative high schools[*] provide examples of how smaller schools may be achieved. Some alternatives' missions differ from that of a typical large, zoned high school which make them unsuitable for general comparison.[**] Others, however -- such as Central Park East Secondary School, Middle College and University Heights high schools -- are classified as alternatives more because of their innovative programs than because of their differing student populations or outcome goals.[11]

These three alternative high schools depart from traditional school organization, employing different strategies to achieve traditional educational outcomes -- specifically, to enable students to pass the six state-mandated Regents' Competency Tests (RCTs) necessary to obtain a high school diploma. Successful implementation of these strategies results in non-traditional administrative and organizational structures that we believe provide sound ideas for achieving affordable small schools in New York City.

Further, house plans and multi-school units represent the creation of smaller school units within a school building, as discussed later in this report. House plans have been established in many New York City high schools and a number of intermediate schools.

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[*] The Public Education Association fielded two major studies of New York city alternative schools in the early 1980s. The reports those studies generated, Towards School Improvement: Lessons from Alternative High Schools (New York, 1982) and Educating the At-Risk Adolescent: More Lessons from Alternative High Schools (New York, 1984), are available from PEA.

[**] It bears noting, however, that these alternative high schools are designed specifically for students who don't "make it" in regular, traditional schools; their costs can thus be compared with reason to those of special education programs, which are much higher.

Table 7, below, reports the net registers of 15 alternative schools currently operating in New York City.

Table 7

Net Registers of 15 Alternative High Schools in New York City (Spring, 1990)

Alternative High School	Net Register
Satellite Academy	758
International School	416
Bronx Regional	375
University Heights	312
Middle College	483
City-as-School	779
Hostos-Lincoln Academy	274
Brooklyn College Academy	226
West Side	530
Central Park East	347
Street Academy	285
High School Redirection	508
Concord	221
Pacific	413
Lower East Side Prep	575
Total Net Register	**7,379**
Average Net Register	**492 students**

Source: "Comparative Analysis of the Organization of High Schools: 1989-1990"

Comparative costs of large and small high schools

Reproduction of the administrative organization of New York City's traditional large schools in a myriad of smaller schools would indeed result in prohibitive expense. However, while additional expense for some functions may be unavoidable (e.g., one principal for 750 students will cost more per capita than one principal for 2000 students), the need for complete organizational replication to achieve educational goals in smaller schools has not been established.

For determining small school affordability, we ideally would have liked to compare traditionally organized small and large schools sharing similar curricula and educational missions. But small, traditionally organized public schools are rare in New York City. Therefore this report has used alternative school examples as the primary basis of cost and organizational comparisons with large schools; their non-traditional organizational structures, while not directly comparable to traditional models, provide clear examples of ways to meet educational goals in small schools affordably.

Limitations to comparison: The following considerations impose limits on the comparison of alternative school costs to regular high school costs:

1) Actual staffing patterns of most large schools are distorted on the low side by the fact that the Board of Education has, for a long time, distributed funds on the assumption there is an economy of scale. This arbitrarily caps hiring. PEA has long argued that both the allocations and staffing patterns are unrealistically low in terms of these schools' needs.

2) The budget allocation for alternatives is figured differently than that for regular high schools.

3) Principals of alternative schools are paid less than their regular high school counterparts.

4) Alternatives are generally smaller than the sizes for high schools recommended by the Public Education Association (750-1200).

5) As mentioned earlier (cf. p. 13), the missions of some New York City alternative schools differ considerably from those of regular high schools.

Because of these important and acknowledged limitations, cost-unit comparisons are offered only as a way to:

- highlight the costs associated with organizing differently, and

- place our recommendations in a quantitative perspective.

Table 8 compares two traditionally organized regular high schools and two alternative high schools, all of which offer curricula designed to enable students to take and pass the RCT diploma requirements.

Table 8

Comparison of Tax Levy Units Allocated to Full-time Positions by Principals in Four New York City High Schools

School Type	Reg. H.S.	Reg. H.S.	Alt. H.S.	Alt. H.S.
School Size (enrollment)	1333	2360	312	483
Principal	1.79	1.79	1.48	1.48
AP Admin.	4.05	4.04	1.33	2.66
AP Super.	8.10	10.80	1.33	1.33
Guidance	5.85	3.51	-0-	-0-
Secretary	4.48	6.4	.64	.64
Teacher (Library*)	1	2	-0-	-0-
Teacher (Other)	77	109.20	18.60	25.80
Stock Handler	4	1	-0-	-0-
TOTAL FULL-TIME UNITS ALLOC.	108.53	143.28	23.38	31.91
Percentage of units allocated for APs-Supervision and Secretaries	11.6%	12.0%	8.4%	6.2%

Source: For regular high schools, New York City Board of Education "Comparative Analysis of the Organization of High Schools (1989-1990)."
For alternatives, "Table of Organization: Middle College and University Heights" (Spring 1991).

* Note: Library teachers are required by the New York City Board of Education for schools with enrollments greater than 1000 students.[12] Large size often creates unique needs which have to be addressed by enriched supportive services and otherwise entail additional costs.

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That there are different ways of organizing for educational programming is evidenced in Table 8 by:

a) the use of many assistant principals for supervision and the notably larger number of secretaries in regular high schools, and

b) by providing guidance services in ways other than sole reliance on allocated guidance counselors.

The comparison highlights the dis-economy associated with increased school size for supervisory and clerical support. Further, given the different allocation formulas in effect for traditional and alternative schools, assistant principals for supervision cost more in traditional schools than in alternatives -- 1.35 units versus 1.33 units, respectively.

Table 9, on the following page, presents an analysis of typical functional specializations of assistant principals and secretaries in a typical large high school.

Table 9

Analysis of a Typical NYC Zoned High School, Tax-levy Positions Allocated (1988-89)

General Education Register	3013
Special Education Register	219
Total Register	3232

Principal	1
Assistant Principal, Organization	1
Assistant Principal, Guidance	1
Assistant Principal, AI/DP	1[a]
Assistant Principal, Accounting	1
Assistant Principal, Physical Science	1
Assistant Principal, English	1
Assistant Principal, Language	1
Assistant Principal, Health/PE	1
Assistant Principal, Mathematics	1
Assistant Principal, Secretarial Studies	1
Assistant Principal, Special Education	1
Secretaries	
Assigned to Principal	1
Assigned to APs-Administration	3
Assigned to APs-Supervision	1
Payroll	1
Supplies	1
Admissions	2
Records	2
Guidance Counselors	5
Laboratory Specialists	2
Library Teachers	2
Language Handicap Teachers (teacher assigned)	.6
School Neighborhood Worker	1
Educational Paraprofessionals	4
Family Paraprofessionals	3
School Aides	8
	49 total

Source: Comparative Analysis of the Organization of High Schools

Note: All are tax-levy positions,
except a: State-aided dropout prevention program.

Table 10, following, presents an example of projected reduced school costs that can be realized by a move away from the traditional model for allocating full-time tax levy positions.

Table 10

Projected Cost Reductions for A 750-Student High School with 20-Student Classes

School Size	750
Principal	1.79 units
AP-Administration	1.35
APs-Supervision	2.70
Guidance Counselors	3.51
Secretary	1.92
Teachers	37
Stock Handler	1
Total Units	49.27
Percentage of units allocated for APs-supervision and Secretaries	9.4%

Assumptions: 1) Average class size 20 students
2) APs-supervision teach three classes each.

Note: This table uses unit allocations based on amounts for regular high schools, as in Table 8.

Table 10 represents a potentially substantial cost savings over many large schools (compare with Table 8's typical regular high school percentages). Based on this projection, a regular high school of 750 students can reduce its percentage of administrative overhead devoted to APs-supervision and secretaries to 9.4 percent, even while offering smaller classes. This suggests both that administrative costs can be reduced and that more effective, small learning environments can be realized.

Table 11, on the following page, provides a survey of recent median salaries and salary ranges for selected school personnel positions discussed in this and following sections of this report.

Table 11

SALARIES OF SELECTED NEW YORK CITY SCHOOL PERSONNEL
(1990-1991)

	Median Salary
Principals	
Elementary	$64,850
Middle	69,132
Junior	66,921
High School	70,728
Special	63,750[a]
Assistant Principals	
Administration	$54,739[b]
Supervision	56,719[c]

	(1989-1990) Salary Range
Guidance Counselors	
Full-time	$24,487 to $51,075
Social Workers/Psychologists	
Full-time	$24,737 to $52,175
Per Session	$27.93
Teachers	
Average Salary	$38,600[d]
Median Salary	43,217[e]
Range	24,229 to $49,675[f]
Secretaries	
Range	$19,084 to $32,750

Annualized Paraprofessionals--UFT (1989-90)

Based on a 5-1/2 hour contractual day

Teacher Aide	$12,295
Education Assistant	13,540
Bilingual Professional	17,424

Annualized Paraprofessionals--DC 37[g]

Family Worker	$11,732
Family Assistant	12,924
Family Associate	15,837
Parent Program Asst.	16,730

Sources: Education Department, State of New York (July, 1991), NYC Board of Education, Office of Budget Operations and Review (Circ. 1, 1990-91).

Note: These are a selected few of hundreds of school-site positions in use.

[a] Includes alternatives

[b] All schools (Elem.- H.S.)

[c] Subject specialists, high school

[d] 1988-89

[e] 1990-91

[f] 1989-90

[g] Paraprofessionals hired after 9/9/86; salaries were higher prior to that date.

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As these forgoing discussions and materials show, administrative structure represents an important source of potential operational cost savings in a move to smaller schools. Regular high schools' top-heavy administrations, through their utilization of many assistant principals for supervision and the associated secretarial support, clearly demonstrate a primary example of the dis-economies associated with large scale.

Table 12 presents an example of principal and assistant principal costs using median salaries. It suggests that smaller schools can be affordable if we move away from the traditional administrative structures.

Table 12

School Size		750		2250
		Cost		Cost
Principal	1	$ 70,728	1	$ 70,728
Assistant Principals				
Administrative	1	54,739	3	164,217
Supervision	2	113,438	8	453,752
Total Cost		$238,905		$688,697

Three schools of 750 students (total students: 2250) with 1 Principal, 1 AP-administration and 2 APs-supervision each (a $238,905 cost per school), could be expected to incur a three-school total cost of $716,715 (a difference of +$28,018 when compared to a single school with an equivalent student body). This hypothetical $28,018 figure could be interpreted as the approximate unit cost of one teacher, psychologist or guidance counselor. Schools advocates say large schools, where staff is arbitrarily capped by the budget formula, should have additional positions. But a single extra position in a dysfunctional large school will not enable that school to become functional; in contrast, three small schools serving the same student population at the additional cost of one extra person stand an extremely good chance of providing those students with a far more effective education.

IV. SOURCES OF SAVINGS IN SMALL SCHOOLS

Research for this report, including the analysis of staffing costs already discussed, has identified a number of potentially significant sources of savings unique to small schools that contribute to their affordability. These include:

- reduced or reoriented roles for middle management, most notably assistant principals for supervision;
- more efficient use, with consequent proportionate reduction, of clerical staff;
- teacher- and classroom-based guidance;
- cross-teaching and/or teacher-sharing;
- simplified and interdisciplinary curricula;
- reduced need for building security services;
- simplified monitoring;
- cost-efficient multi-school sites and houses.

(See Appendix 2, "Additional Notes on Chapter IV," attached, for further details and opinion pertaining to this chapter.)

A. New Roles for Assistant Principals for Supervision (APs-Supervision)

Based on our interviews and research, the need for full time assistant principals for supervision in small schools, serving their traditional functions, is not absolute. While this subject-specialist level assistant principalship (also called "subject supervisor") is defended as one of a limited number of upward career moves for teachers,[*] it nonetheless bears close scrutiny. A thorough reconceptualization of this administrative position could remove an important fiscal constraint to organizing effective smaller schools in New York City.

APs-supervision, as traditionally deployed, are part of the routine personnel configuration found in every middle and high school in New York City. In smaller and restructured schools the position has the potential to become highly selective and highly valued, geared toward providing real leadership and expertise. As is currently the practice in some middle schools,[*] it is both desirable and possible to use APs-supervision as staff-development specialists. In multi-unit buildings that are subdivided into small schools or houses, "itinerant" APs-supervision who go school-to-school become eminently practical and highly cost effective.

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[*] Further, the Board of Education Equity for Middle Schools task force may endorse creation of more AP-supervision slots for middle and junior high schools. As we will attempt to show, however, it seems more reasonable to suggest that as existing assistant principals for supervision in the system retire, alternatively configured small school organizations be phased in.

As defined by the Council of Administrators and Supervisors[13], the tasks traditionally assigned to assistant principals for supervision are:

1) Training teachers (includes observation and evaluation);
2) Departmental administration (includes programming and ordering supplies);
3) Responsibility for pupil progress in affective and cognitive domains (includes establishing grading policies and setting up testing programs);
4) Working out a meaningful curriculum/curricula series that makes due provision for individual differences;
5) Achieving a climate of good human relations with students and colleagues (liaison between students and faculty);
6) Exploring/innovating new trends in curriculum development;
7) Building co- and extra-curricular programs;
8) Participating membership in Principal's Cabinet;
9) Working with the community and educating parents re program offerings;
10) Developing instructional priorities and emphases.

As discussed elsewhere in this report, many principals of alternative small schools and other educators view these functions as required tasks, but do not view the position itself as a necessity in a small school hierarchy. In general, the above-listed tasks group themselves into two categories: teacher training and evaluation, and curriculum support. Among the functions that are, or could be, assumed by teachers or principals/directors in small schools, we note the following:

Evaluation. Since teachers in New York City are technically forbidden under their contract to place a negative report in another teacher's file[14], a few interviewees believed the AP-supervision role is necessary at all school sizes[15] for the specific task of observing and evaluating teachers. Nevertheless, most believe that a distinction should be made between large and small schools. They point out that while the ultimate job of rating belongs to principals, this need only mean that principals make the final decision. As is provided in some union contracts elsewhere, the processes of observation and interaction can legitimately and cost-effectively be assigned to teachers.[*]

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[*] During a November 1991 PEA roundtable discussion on small schools affordability, Dr. Beverly Hall, superintendent of District 27 and former principal of JHS 113-K, a cluster of subschools, offered the following observation: "Middle schools function financially and bureaucratically on less than half of what high schools are given. I think middle schools are going to set the trend for the high schools in the immediate future."

The premise supporting use of APs-supervision for evaluation views the process as an arms-length rating mechanism. In small schools, on the other hand, evaluation is used as a tool for development. Interviews[16] with Deborah Meier, Cecilia Cullen, Nancy Mohr, Steven Phillips, Douglas Skeet[**] and David McGuire suggest that alternative and smaller traditional schools approach the evaluation process as a tool for improvement rather than judgment (see Appendix 3, "How the evaluation process is viewed and conducted in alternatives and smaller traditional schools," attached.) The real issue, as they view it, is to achieve collaboration around a school's improvement.

Deborah Meier suggests that many principals and APs-supervision avoid giving unsatisfactory teacher ratings even when clearly called for, because removal of a teacher found to be consistently unsatisfactory requires a due-process procedure (under union contracts and state tenure laws) both time-consuming and complex.[***] She further suggested that giving APs-supervision primary responsibility for evaluation only serves to distort a task of great personal and powerful importance into a conflict between management and labor.[17]

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[*] *see* "Common Agendas: Collective Bargaining Between School Districts and Teacher Unions," by Jeanne Frankl and Kym Vanderbilt, PEA, New York, 1991.

[**] Principal Skeet offered the example of his own Apollo Middle School in Rochester, New York, an academic middle school of 1200 students divided into four houses. There, the principal takes the primary role of evaluating teachers in the early probationary phase of their career; team leaders (teachers elected by fellow teachers) and a vice principal are responsible for primary assessment once a teacher is out of the probationary phase. In all cases the principal makes the final decision.

[***] Thus, as currently practiced in large traditional New York City schools, the evaluation process does not provide a strong case for retaining APs-supervision.

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curriculum support. Advocates for APs-supervision also stress the need for a subject expert to ensure that school curricula support state-mandated curricular requirements. However, teacher groups or itinerant APs can be used for this purpose. Several of our interviewees, including District 26's Community Schools Superintendent Irwin Altman, noted that the subject experts who "float" as "itinerants" between New York City schools in support of summer school goals could provide a model for the regular school year.[18]

Because most traditional schools with an academic focus in New York State are smaller at every school level than schools within New York City, and because some New York City alternative schools have an exclusively academic focus, we sought to discover how these smaller schools address curriculum compliance with state mandates in the absence of APs-supervision.

The question, "Who is responsible for ensuring that the curriculum meets state-mandated diploma requirements for graduating from high school (or ensuring students will pass competency-based tests)?" elicited a variety of responses from small-school leaders in and out of New York City (see Appendix 4, attached). Generally, the role was fulfilled by teachers or teacher committees,[*] sometimes working with district-employed subject or program coordinators.

According to the Education Department of the State of New York, in examining all the 718 school districts in New York State no other district's high schools have an administrative position with the specific job description of assistant principal for supervision. This difference may be largely attributed to school size, since supervision requirements generally increase with size and New York City has the State's greatest concentration of large schools.

The only State mandated administrative personnel requirement for schools is that there must be one building site principal. Most schools in New York State elect to have one assistant principal for administrative purposes, usually titled a vice-principal.

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[*] Central Park East's Deborah Meier offered an observation much echoed in the comments of other small school leaders: "Teachers are intelligent professionals. They can read the requirements. [By adding on extra APs-supervision] the New York City Board of Education tries to solve bureaucratically what we solve just by being small."

In a move toward smaller schools, the whole school environment changes. Increased collaboration, reduced supervisory needs, and other related advantages of smaller organization suggest not only that teachers can do the tasks associated with the AP-supervision role, but that size and collaboration allow less time to be alloted for performance of these functions.[*] Our interviewees repeatedly expressed two general observations on this subject:

- with a smaller school, a collaborative teaching effort, and well-planned scheduling, teachers can successfully perform the functions traditionally provided by assistant principals of supervision, and
- in most cases, small schools can be affordable[**] mainly because a layer of costly management can be removed.[19]

As these arguments indicate, reducing or eliminating the number of APs-supervision -- through a reorientation of their role or through reorganization of their functional duties-- is a clear source of potential operational cost savings, because small schools do not require the same full-time administrative coverage of each subject area that large schools do.

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[*] Additionally, at some alternatives, the costs of a substitute teacher are offset since even the Principal is prepared to teach, and thus cover classes of an absent teacher, as well.

[**] To again quote Deborah Meier, "In cases where an individual small school will cost more, it will still be affordable."

B. Re-examining the Role and Use of Clerical Workers

A reduced number of APs-supervision could further result in less need for clerical/secretarial support -- at least one secretary fewer in schools that provide extra clerical support for the AP role. As the Board of Education's Superintendent of alternative high school programs, Stephen Phillips, noted, clerical specialization in big high schools -- in payroll, supplies, admissions and records, etc. -- results in some secretaries being "busy" only a few times a week or a few times a month, depending on the nature of their specialty or job description. In small schools, one secretary has a constant, busy level of work all the time.[20]

The concept of "clerical pooling" posits that one secretary, cross-trained in a variety of general tasks, has the general ability to perform another secretary's task if that other is busy. The benefits of effective clerical pooling include:

a) Smaller numbers of clerical staff because of less slack, non-productive time
b) Fewer slowdowns caused by absenteeism
c) Staffs' improved overall clerical-skills base.

Table 13, following, breaks down the functional specializations of secretaries in a large high school.

Table 13

Functional Specialization of 11 Secretaries
in a Large High School in Brooklyn
(1988-89)

Secretaries	
Assigned to Principal	1
Assigned to APs-Administration	3
Assigned to APs-Supervision	1
Payroll	1
Supplies	1
Admissions	2
Records	2

Source: NYC Board of Education, "Comparative Analysis of the Organization of High Schools," 1988-89.

Currently, each AP-supervision/subject supervisor is entitled to one half day of clerical support each week. In large New York City high schools, even this level of clerical support is often inadequate, though it varies by school.[21] For example, in a school with eight assistant principals for supervision, four full days of clerical time is required.[*]

In large schools, the sheer impracticality of seeking reliable, direct interaction with specific personnel results in blanket distribution of memos, even when the content applies to a very few individuals. This results in confusion and the initiation of further superfluous memos. In a small school, a potential memorandum initiator can walk up to the person or persons he needs to speak to and pass along the necessary message directly. This advantage clearly reduces the need for and use of clerical time.[22]

C. Deans and Small School Affordability

While actual legal responsibility in all schools resides with the principal, in large high schools functional responsibility for school security and safety is assigned to a "dean." Deans maintain discipline and are expected to be knowledgeable of the legal issues associated with discipline and suspension of students. The role of dean has been described as necessary in large schools, both to provide a disciplined environment and because of legal issues surrounding inappropriate or improper student suspensions.[23]

Deans are traditionally teachers; while they do not receive extra pay, the assignment incurs additional costs for their schools in that they receive compensatory time off from teaching to perform this function.

New York City alternative schools and some smaller traditional schools in New York State address security and safety issues differently. Alternative schools do not have deans, and in the smaller schools reported on here no one receives additional pay or compensatory time off for addressing issues related to discipline. The need to impose formal discipline occurs less often in these schools,[25] suggesting that the benefits for students -- enhanced personal contact with, and attention from, adults -- may result in cost savings as well.

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[*] Clerical support is usually directed toward completing paperwork initiated by the Board of Education to satisfy local, state or federal compliance issues, and initiating or responding to internal and external memoranda. Reducing the volume (and often unnecessary duplication of) compliance-related paperwork would save "enormous" amounts in terms of personnel time, postage, paper, xerox toner and stress, much of which does not usefully serve the student.[24] In smaller schools, the volume of compliance is obviously reduced by size.

In the alternative high schools studied for this report, most teachers engage in some administrative functions; some have extensive administrative roles, such as that of coordinator. While a coordinator does receive some compensatory time off, it is not time comparable in magnitude or duration to that given deans in larger schools. Additionally, at some alternatives the costs of a substitute teacher to fill in for a teacher occupied in administration are offset, since even the principal is available and prepared to teach.

D. Guidance: Teacher as Advisor

Guidance is another area of potential cost savings. There was consensus among interviewees that with smaller schools, the actual need for guidance counselors is reduced. This is so not only because of obvious case load reductions, but because "guidance"-- as distinct from "counseling"-- can occur naturally through the accessibility of teachers and administrators to all students.[26]

Many alternative schools have instituted the guidance approach of "teacher-as-advisor." The teacher/advisors provide better support for students[*] and can also do much of the factual information dispensing to which, at large schools, guidance counselors devote much of their time.[27] Counselors, social workers or psychologists working in alternative high schools can thus spend the bulk of their time offering direct counseling to students, making referrals to external agencies which can conduct therapy, or advising teachers.

E. Curriculum-determined Teacher Roles and Cost Savings

In the move to smaller schools, a flexible, curriculum-driven approach to teacher assignments -- particularly within an interdisciplinary context, or in situations where teachers of specialty subjects can be "shared" across several schools -- allows more teachers to be in the classroom cost efficiently and fewer teachers in the system that do not teach.

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[*] For example, the Family Group at the Urban Academy -- part counseling group, part family, part academic class -- is an official class that becomes a student's surrogate "home." A teacher, not a guidance counselor, heads this group. In addition to Family Group assignments, students identified as at particularly high risk for dropping out or noted for having extreme personal problems may be assigned to individual faculty for special attention and intervention.[27a]

Personnel represent the largest portion of an individual school's budget, with teachers comprising the greatest portion of personnel. Systemwide, teachers account for almost 56 percent of the total New York City Board of Education labor force.[28]

In regular high schools the percentage of actual teacher time spent in class is on average 32 percent,[29] whereas in the elementary, intermediate and alternative schools the percentages range between 60 and 85 percent.[30] This may be at least partly because teachers in large high schoools tend to be specialists in a single subject; a large school may hire more teachers than it needs who do not work all the time but are needed to cover the range of course offerings.

It is further important to note that while many schools appear to have appropriate numbers of teachers on their rosters, classification as "teacher" does not necessarily mean that an individual spends his/her time teaching.[31] There are also positions that do not have teaching as their primary focus; rather, the teachers serve administratively and contribute to that overhead.

♦ Generalist's Approach to Curriculum

A generalist's approach to curriculum allows teacher assignments not limited by specialty. In an interdisciplinary school, teachers integrate more than one subject area into a course, and many teachers cross-teach in different subjects. Alternative schools requested and received permission from the Board of Education for teachers to teach more than one subject[32]; licensing issues would otherwise preclude this practice.

The May 1989 issue of Horace* presents three examples of alternative approaches to scheduling that are used in three member-schools of the Coalition of Essential Schools. The schedule illustrated by **Figure 2** on page 35, following, offers one such example, representing a "stripped-electives," "less-is-more" approach (such as that employed by Central Park East Secondary) with an interdisciplinary component.

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* Horace, published five times yearly at Brown University, is the journal of the Coalition of Essential Schools led by education theorist Ted Sizer; the Coalition provides models for many alternative and small schools.

"Here," the Horace article explains, "all teachers are teaching at once, and they are all off at once too, to facilitate common planning time. Two-hour interdisciplinary classes meet in the morning and the afternoon, and a student-teacher advisory period is scheduled four days a week. One morning a week, all students go into the community service projects, while teachers meet to make plans together. Spanish is the only elective offered, for one hour before school four days a week; and any other electives take place in the two hours after school is officially over."[33]

Clearly, this is just one scheduling option, but it exemplifies the kind of flexible approach needed to make small schools educationally feasible and economically affordable.

Figure 2

A Sample Schedule of Extended Classes, featuring an Interdisciplinary Component

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00-9:00	Language	Language	Community Service	Language	Language
9:00-11:00	Humanities	Humanities	Community Service	Humanities	Humanities
11:00-12:00	Advisory	Advisory	Community Service	Advisory	Advisory
12:00-1:00	Lunch/ Options	Lunch/ Options	Lunch/ Options	Lunch/ Options	Lunch/ Options
1:00-3:00	Math/ Science	Math/ Science	Math/ Science or Humanities	Math/ Science	Math/ Science
3:00-5:00	Electives/ Library	Electives/ Library	Electives/ Library	Electives/ Library	Electives/ Library

Source: Horace, May 1989, example C of featured program variations.

In alternatives, teachers may teach several subjects; if demand is not high enough to run a particular subject all day, instructors teach other courses. As a specific result, the concern experienced in a large school -- that a subject area's low demand will create an under-utilized teacher -- does not occur in a small school.

Alternatively, as one interviewee pointed out, "In a small school or schools, music or art or physics courses, where demand may be lowest, can be shared across schools."[34] With sufficient numbers of small schools in the system, two or more schools can employ the same teacher, and pay their proportional share of the teacher cost from their respective budgets.

F. Management and Monitoring

Research and educators[*] agree that the principal plays the key role in any school. If a school's leader has

- a clear vision of that school's mission,
- a manageable school size, and
- the requisite managerial skills and autonomy,

then the primary conditions for achieving an effective small school have been met.[35] Table 14, below, provides a list of the qualities research has found to characterize the principals of effective schools.

Table 14

Characteristics of Effective Schools' Principals

Principals of effective schools

- Set clear instructional goals
- Monitor what happens in their school
- Adapt policies to school needs
- Protect the school from uncertainties
- Acquire power relative to the larger system
- Adapt the reward system of the district to school needs
- Protect their school from interference in instructional endeavors
- Use rewards and resources to recognize teachers' accomplishments

Source: Managing Productive Schools, K.J. Snyder and R.H. Anderson, 1986.

As Table 14 suggests, monitoring what happens in her or his school is a key characteristic of an effective principal. Specifically, principals should be involved with the daily events of the school. Smaller schools are unarguably more manageable in that regard. Principals in smaller schools are able to get out of the office and visit classrooms, to personally keep tabs on personnel and more directly identify, assess and respond to needs and possible waste as they arise.

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[*] Central Park East principal Deborah Meier specifically identifies a) individual school autonomy and b) reduction of "middle management" as the two key conditions in making small schools affordable. An able school leader with appropriate power to make decisions, Ms. Meier contends, can do more to effect cost savings and efficiency than all the individuals higher up in the bureaucracy.

"Small schools are more affordable in that they are easier to monitor," she said. "For example, in a large school it is possible that ordered supplies either never reach the school, or arrive in short numbers. A small school administrator would be able to track supplies more quickly and efficiently, and can quickly identify misappropriation or false invoice requests. And, while the external bureaucracy may believe it is tracking personnel attendance at a specific school, it is quite possible for personnel to 'disappear' or be 'unlocateable' without attracting bureaucratic notice. It is easier for 'cover-ups' to exist in large schools."[36]

G. Security and Cost Savings

A number of interviewees viewed security costs as an overlooked source of savings in small schools. Research has demonstrated that small schools experience significantly fewer acts of violence and other disruptions than schools of larger sizes.[37] The positive effects of small school environments on student behaviors more than proportionately reduce the need for security guards and expensive metal detectors.

Our interviews support empirical research findings that in smaller schools, security threats are usually external. Thus, concern is with guarding entrances to assure only students and school personnel enter the school building.[38] Several heads of alternative schools claimed they neither use nor need metal detectors (see Appendix 2, pages 9-10), and that internal security does not require special guards such as are common in large schools.[*] Overall it was agreed that small alternatives have many fewer disruptions than large regular high schools.

In fact, during the 1990-1991 school year, a total of only ten serious incidents[**] occurred in all 15 of the alternative schools represented in Table 7 (page 15). Five of these serious incidents occurred in one school, with most of the alternatives experiencing no serious incidents. Of the ten serious incidents, eight were assault and two were weapons possession.[40] Non-alternative, larger schools experienced significantly more serious incidents. A March 2, 1992 New York Times story about school security conditions, for example, written in the aftermath of two fatal, late-February shootings at Brooklyn's Thomas Jefferson high school, stated that New York City public schools had experienced 3,843 serious incidents in 1990-91. While this information is not broken out by school size or type,* the two figures' contrast and implications are unmistakeable.

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[*] One principal decried the presence of guards as "provocative," suggesting that confrontational behavior by guards was at least partly responsible for negative student behavior patterns.[39]

[**] Serious incidents are those of assault, robbery, weapons possession, sex offense and possession of controlled substances.

Suspensions, which are largely related to weapons possession or other disruptive and physically threatening student behaviors,[41] provide another striking comparison. Between 1982 and 1984, the most recent data obtained that allows direct comparison, New York City alternative schools as a group had an average of 13 students suspended per year over the two years; non-alternative New York City high schools each averaged 170 student suspensions per year over the same two years.[42] In 1990-91, according to a March 1, 1992 New York Newsday story on transferring violent students out of regular school settings, there were 8,066 suspensions; according to the office of the Superintendent of Alternative High Schools and Programs, in 1991-92 there were 105 suspensions, total, among all 30,000 students in alternative schools and programs.

These statistics take on even greater weight when one considers that, of all students in the school system, alternative school students as a whole include those identified as "most at-risk" for behavioral problems and dropping out.

Estimating costs of anticipated security cost reductions is difficult. However, in 1992 the New York City Board of Education proposed to spend an additional $24 million for increased high school security, and to "expand significantly" the current force of 2,125 security officers.[43] These expenditures could be better devoted to a move toward smaller schools.

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* In preparing this report, PEA was told that incidents reports for individual New York City public schools were not in the public domain.

H. Multi-School Sites[44]

A multi-school site is similar in concept to a vertical house plan[*] (see note below and Section I, following), in that all grades are contained within a house or school. It differs, however, in that a number of separate schools within a single building are under individually distinct leadership -- perhaps with different specializations, or a junior high and a high school may be housed together. The Central Park East Schools are in such a building.

The same recommendations for cost savings exemplified by alternative school staffing patterns can be realized in this model. Sharing makes possible the merging of facilities that would otherwise be duplicated, for example:

a) Shared Facilities. Specifically, a central cafeteria can be shared through shift scheduling, as can an auditorium, gymnasium and any other recreational facilities; library facilities and staff may also be shared. Costs for supervision and coordination of facility use may be shared by each of the individual schools' budgets.

b) Teacher-Sharing Across Schools. Some or all of the schools in a multi-school site may pay a proportional amount of a shared teacher's salary, enabling individual schools to regularly and cost-efficiently offer otherwise low-demand or undersubscribed courses.

To maintain an individual school's integrity and autonomy within a larger school building, multi-school sites must be well planned and well laid-out. Separate entrances for each school are desirable, and careful coordination of shared spaces is essential.

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[*] House plans are divisions of schools into single- or multi-grade subunits for all or part of the curriculum. Depending on their autonomy, "houses" may be similar to sub-schools on a multi-school site. The Public Education Association has studied house plans since all New York City high schools with coordinated drop-out prevention programs were required to introduce such plans in 1989-90. For details of our findings, see "Making Big High Schools Smaller" (PEA, 1989) and "Restructuring Neighborhood High Schools: The House Plan Solution" (PEA, 1990).

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I. House Plans

In a model house plan, students, teachers, administrators, guidance personnel, support staff and the school building itself are reorganized to place everyone in smaller school units. While PEA's reports on house plans have pointed out certain problems that remain unresolved, house plans could be a viable approach to creating small schools quickly and inexpensively within New York City's large high schools.

To date some house plans have been unnecessarily more costly to operate. House plans receive 2.5 units over the base rate in their tax-levy allocations simply because they are house plans, raising their apparent initial costs.[45]

Further, the semi- or limited autonomy experienced by many house plans illustrates a concern cited by many small school directors, since program and staffing patterns may suffer interference in ways that have practical and cost-efficiency implications. For example, a number of house plans were "overlaid" on inherited organizational structures, absorbing existing personnel with, in some cases, additional personnel being hired; this resulted in unnecessarily and unrepresentatively expensive staffing patterns.[*] [46]

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[*] Securing the cooperation of unions for carefully planned staffing reorganization and reduction was singled out by interviewees for this report as key to reducing house plans' operational costs.[47] The most expensive constraint to achieving affordable house plan operation has been the retention of assistant principals and para-professionals held over from a restructured school's previous organization. Many APs-supervision or paras are assigned tasks that can be performed by lower-salaried or other personnel.

V. CURRICULUM AND PROGRAM IMPLICATIONS

By reducing the number of courses and by efficient, effective utilization of teachers, it is possible to make a basic core curiculum a feasible option and address mandated requirements. One interviewee, Seymour Fliegel, pointed out, "The key to affording small schools is a different use of resources."[*]

The options discussed below make clear that the cost savings inherent in less courses and fewer specialists are by no means achieved at the expense of a solid educational program.

(1) Reduce the number of courses taught per day.

- In line with current education trends toward integrating disciplines, a number of schools in and out of New York City are offering integrated, interdisciplinary courses taught in a two-period block of time. This approach has been shown to successfully achieve educational goals and requirements measured by standardized tests, acceptances to 2- and 4-year colleges, obtaining and maintaining a job after graduation and the like.

- It also has planning and learning advantages.[48] Integration of disciplines enhances critical thinking about "application" of knowledge.

- Further, students and teachers "pick up" concentration benefits: they can focus for longer periods on topic areas and engage in more in-depth projects and discussion in class.[49]

- From a planning-and-efficiency perspective, passing time is reduced -- picking up more time in a day for teachers to engage in other activities or to teach an additional class. Teachers can teach in teams; cross-licensed teachers can stay with the same students for longer periods, building rapport.

(2) Utilize teachers differently

- Using such means as cross-licensing (i.e., teachers with

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[*] Another, Gloria Rakovic (former principal of the alternative Satellite Academy and now principal of Brooklyn's High School for Telecommunication Arts and Sciences), noted during PEA's November 1991 roundtable on small schools affordability that, in smaller schools, it is more possible to directly observe and assess "cause and effect," and thus to weed out inefficient or ineffective processes. "Anything done in the school that does not have a visibly direct impact on the student," she said, "is a waste and should be eliminated."

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multiple subject licenses) and sharing teachers between schools helps support the option of a basic core curriculum. As mentioned earlier, a teacher with more than one license can teach one subject during three or four periods a day and another subject during the remaining periods. In a small school or house plan unit, cross-licensing reduces the possible need for extra staffing entailed by offering low-demand classes. In some schools it may reduce the overall number of teachers required, thereby increasing affordability while attending to educational goals.[*] [**]

Alternative approaches to education should be the norm.

Alternative high schools[***] were originally created in New York City to provide an "alternative" to regular comprehensive high schools for two groups of students: those who were a) not making sufficient academic progress, and/or those b) demonstrating other behaviors, conditions or habits -- attendance problems, and family or personal problems -- that placed them at risk of not graduating from high school.[53]

After years of practical experience, many veteran educators now feel the alternatives' model should be the rule rather than the exception. As Anne Cook of Urban Academy states, "Alternatives should be the norm in New York City."[54]

Moreover, using alternative high schools as models by no means limits the significance of derived findings to the high school level. Suggestions regarding teachers as advisors, efficient use of clerical support, and curriculum, among many others, apply to all levels of schools.

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[*] According to Douglas Skeet of Rochester's Apollo Middle, "We saved 7.6 teachers by going to the house plan and improved teacher collaboration and involvement at the same time."[50] Apollo also practices teacher-sharing for music instruction; while demand would have been too low to support a full-time position in any one subschool, all subschools had interested students who are now served.

[**] One frequently expressed concern over teacher-sharing regards the loss of time spent in teacher travel. The cost-benefit question asks: Is it more cost effective to lose one or two periods of teacher time to travel, or to have two or more schools employ full-time, under-utilized teachers? Experience suggests that trade-offs of this kind are best weighed and resolved on an individual school/teacher basis.

Nancy Mohr, principal of University Heights High School and a former teacher and administrator in a large school, noted that some large schools that offer physics, for example, may have class sizes as small as six students -- "not an efficient use of personnel," she stated. "When we have students at UHHS who demonstrate an interest and ability for subjects such as physics or advanced mathematics, we have them attend courses at Bronx Community College."[51]

[***] A 1990 report from the Chancellor's Office describes "smaller alternative high schools with non-traditional settings and regimens that stress academic and personal support."[52]

Documented Successes of Alternatives: Many students at alternatives earn more credits over the course of a year than do their counterparts -- or than they, themselves did -- in comprehensive high schools.

Table 15, below, demonstrates the credit increases of 90 randomly selected students from the alternative high school student population; they had each completed one year at an alternative, which is compared in terms of earned credit units with their prior year's work at a comprehensive high school.

Table 15

Alternative School
Student Credit Accumulation

School	Year Prior	Current Year
Satellite Academy	3.5 credits	12. credits
University Heights	4.62 credits	10.39 credits
City-As-School	5.98 credits	10.36 credits
West Side	4.6 credits	13.8 credits

Source: Position Paper: Alternative High Schools and Programs Cluster; Mark Weiss, Cluster Leader (June 3, 1990).

Alternatives also graduate a higher ratio of students (compared with total school enrollment) than do their comprehensive counterparts.

Table 16, on the following page, presents sample statistics from the Board of Education's 1988-89 Comparative Analysis of the Organization of High Schools.

Table 16

Graduation Statistics

Representative Comprehensive High Schools:

School Size	Number of Graduates
2010 students	153
2510	159
3916	316
2746	247
1799	73

Representative Alternative High Schools:

349	45
775	115
534	128
730	199
415	46

Source: Position Paper: Alternative High Schools and Programs Cluster; Mark Weiss, Cluster Leader (June 3, 1990).

New York City's alternative schools are being recognized nationally for their successes. For example, the Brooklyn-based High School Redirection was studied by the U.S. Department of Labor for possible replication elsewhere in the United States. Based on its findings as published in a March 1991 report, the DOL provided grants to establish schools patterned after High School Redirection in Cincinnati, Denver, Detroit, Los Angeles, Newark, Stockton, and Wichita.* Specifically highlighted were the impact of H.S. Redirection's program for increasing students' reading abilities (the dramatically successful "STAR" program) and its success at preventing those students most at-risk of dropping out from doing so. According to the report, "We are encouraged by the success of the schools in our replication sites, but there is a great need for more such schools."[55]

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* *see* Appendix 5, "Department of Labor Replication Project," attached, which describes the DOL program and its seven replication sites.

As cited previously in this present report, the Public Education Association conducted in-depth studies of alternative schools in New York City in the early 1980s, detailed in two reports: Towards School Improvement: Lessons from Alternative High Schools (New York, 1982) and Educating the At-Risk Adolescent: More Lessons from Alternative High Schools (New York, 1984).[56]

Key among these reports' findings were the demonstrated abilities of alternatives to:

- Improve student performance;
- Lower dropout rates;
- Increase student involvement.

Further, the schools under PEA study were found to exhibit:

- Strong academic leadership by principals;
- Increased managerial participation by teachers;
- Active teacher involvement in curriculum development.

Members of the New York State Board of Regents staff observed several New York City alternative schools in 1985 to discover why alternatives are "so successful in reaching students obviously 'turned off' by the general education system. They felt the major difference lay in our smaller sized sites and classes, and in the teachers' and administrators' affection and caring for our students."[57]

Philosophy Compatible with Educational Goals

The small size of alternative schools has enabled them to implement the individual philosophies they espouse, all quite different from that of traditional schools. Their approaches to school organization, staffing patterns and curriculum are actively geared to providing a more effective and desirable educational setting.

Table 17, below, lists some of the key principles underlying the alternative philosophy.

Table 17

Alternative Educational Philosophy

- Students are expected to take increasing responsibility for their own education with the knowledge that there is always a safety net available to them.
- Teaching and learning should be personalized.
- Each student should master a limited number of essential skills and areas of knowledge.
- The principal and teachers should perceive themselves as generalists.

Sources: U.S. Department of Labor Employment and Training Administration (1991) A Guide to High School Redirection; Education Department, Brown University (1988), Coalition of Essential Schools: Prospectus; New York City Board of Education (1985) Alternative High Schools and Programs.

In subscribing generally to Theodore Sizer's "less is more" interdisciplinary approach to teaching and learning -- and specifically to cross-licensed teaching and efficient scheduling -- alternative schools realize a cost-efficient utilization of personnel and time.

Regarding educational outcomes, Nancy Mohr noted:

> "Our students are comparable to those in the academic comprehensives.... The difficulty in comparing us has to do with our educational outcome measures."

As Deborah Meier stated:

> "We support our kids like middle-class parents would.... We are interested in getting our students into colleges or jobs.... We're not using Regents.... Our students develop portfolios and do mini-theses as representative work.... We help them get interviews and complete applications for college.... We believe that schools should be accountable for their impact on the future."

VI. NON-FISCAL OBSTACLES TO SMALL SCHOOL STAFFING

The small schools discussed in this report have developed one by one through school level planning processes in which all staff participated. This has enabled them to develop consensus around the fairly radical changes in staffing patterns that support their effective programs and cost efficiency.

More widespread adoption of small school staffing patterns would pose a significant challenge to structures and practices that are institutionalized. Job descriptions and career ladders used throughout the system would have to be revised. Systemwide consciousness raising and accommodation to expectations of current personnel would be essential to avoid inequities and debilitating resentment of the changes. Staff would need reorientation to new roles. School system leadership and unions would have to endorse and help carry out these initiatives.

A systemic move to smaller schools that take advantage of the efficiencies we have described would also benefit from reform of some state regulations and union rules, since these are now typically waived or bypassed on case-by-case bases to accommodate the few current models. A heartening sign for the future is that this process has already begun in some instances.

A. State Regulations and Union Rules

Two categories of state regulations and union rules pose barriers to a systemwide move to small school staffing patterns: the qualifications required to perform "supervisory" roles, and the certifications required to teach.

Qualifications for Supervisory Service

Under the regulations of the State Education Department, supervisors, including principals and anyone spending "more than 25% -- 10 periods per week --" in any "administrative or supervisory position," must meet specified qualifications, namely: 30 graduate credits, including 18 in administration and supervision, and a supervisory internship. (NYCRR sec.80.4(b); see also Appendix 2, attached, "Additional Notes on Chapter IV.") Under

State Education Law, New York City requires additional local licenses for principals and assistant principals.

Theoretically, the 25% requirement should prevent small schools from using teachers for most of the department chair functions performed by assistant principals in New York's large schools. In fact, the provision has not deterred most small schools in the city from dispensing with APs-supervision. As already noted, this is partly because small schools have a different view of the evaluative function; partly because the small size of the teaching staffs allows principals to oversee, have the final say on and thus technically themselves perform the strictly supervisory (e.g., teacher evaluation) functions.

The 25% rule, as well as the prohibition in the UFT contract on teachers evaluating teachers (see page 27, preceding) could become a real problem if small schools proliferated and staffs or unions were not comfortable with a more widespread use of teachers in evaluative roles. Happily, the UFT contract stricture is currently being reconsidered. Giving a boost to the process, union contracts in some other cities provide precedent for a provision endorsing the practice of having teachers do initial evaluation subject to a principal's review (again, see page 27).

The Requirement that a School Have a "Principal." The obligation to have a certified "principal" (NYCRR sec. 100.2) has posed a thorny problem for some New York City alternative schools, primarily because many of these schools originated in the willingness of superintendents to let teachers create small schools within their larger institutions.* Where the institutional principal is willing to permit the subschool to shape its own staffing, program, etc., the problem has not proven too substantial; relieved of many burdens by the responsibilities subschool heads assume, building principals have found time to meet technical supervisory oversight requirements while allowing those subschool heads autonomy.

Problems arise when the building principal disapproves of the subschool leader's style or independence and tries to restrict subschool initiatives. The need to escape such oppressive oversight, as well as the belief that autonomous subschools are a sound way to make small schools possible without replacing existing large school buildings, has led to intensive negotiations for a better solution. Involving the New York City Board of Education and the teachers' and supervisory unions, the discussions look toward redefinition of school leadership roles and a new career ladder for teachers that would lead to supervisory status. They are reportedly well on the way to resolution.

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* In the early years of alternative high schools the requirement to have a principal was apparently overlooked. The schools later negotiated a special local license for "principal of alternative high school"; the licensees must still have State supervisor certification.

Teacher Certification Requirements

The practice of permitting teachers to teach a second subject in which they are not necessarily certified or licensed ("cross teaching"), enjoyed by small alternative schools with the benefit of State waivers, may require more formal recognition as small schools proliferate. State certification, as well as local licensing provisions that require teachers to have education credits in the subjects they teach are widely regarded as essential guarantors of teachers' subject competency. In small school or sub-school situations, however, the oversight and collegial support of principals or teacher-directors as well as of peers can provide more direct assurance of teacher competencies. Acknowledging this potential, new regulations should be devised that would allow schools to seek and retain staff with competencies suited to their curricula and teaching strategies.*

B. The Constraints of Tradition and Bureaucracy

Ultimately, the most serious problem in moving to more small schools is dealing with the bureaucratic structure of a system in which the expectations of both teachers and supervisors, as well as of the institutions which prepare them for their jobs, have been conditioned by the current supervisory structure. Teachers have looked toward assistant principalships as a primary, though in fact

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* It is pertinent to note, however, that the inhibition on "cross teaching" applies to medium and large schools no less than to small ones, with similar implications for their effectiveness and their costs. Large high schools, for example, often have specialists who teach undersized classes or less than a full course load in their specialty because there aren't enough students to justify full service; as in small schools, they face the alternative of wasting a staff member's time and salary or putting him/her to work on out-of-license teaching. Large schools, too, no less than small, are limited by short school days in the use they can make of staff. One complaint, that staff on early shifts are not available for afternoon meetings, is probably more characteristic of large than small schools; in any event, all schools must pay extra for most planning and extra-curricular time.

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limited, career ladder; supervisors are provided experience for higher office.

Creating more small schools will create new principalships and encourage the possibility of different careers to which both teachers and assistant principals may aspire. However, teachers will still need intermediate career options, and schools will undoubtedly be interested in the potential for using teachers in diverse roles. Moreover, moving in these various directions will require sensitivity in the dual processes of phasing out old roles and preparing some current staff, as well as new staff, for new roles. School system leadership will have to address the complex negotiations and restructuring required. Teacher training institutions, school system staff developers and union professional development programmers will have to reform curricula that were guided until now by these anachronistic expectations.

VII. CONCLUSIONS AND RECOMMENDATIONS

The goal of this report has been to show that the small schools which research shows to be best for most children are feasible -- not just as occasional, "special" or "alternative" options, but as the mainstay of our public school system. We think we have done so. Nevertheless, we are not completely sanguine that the system is ready to make the sea change in current practice that this shift would require.

One reason, certainly, is the barrier to change posed by the physical structure of not only the existing school plant but new and modernized schools on the drawing board. As we have argued elsewhere,[*] buildings that are massive and designed in ways that deter subdivision into autonomous units discourage, when they do not preclude, small school organization. There needs to be a change in the way our schools are built, designed and redesigned before the city can have the many small schools it needs.

Another necessary initiative will be to tackle the web of vested interests in traditional ways of doing things and, to a lesser extent, the state and local rules, regulations and union practices that stand in the way of the leaner staffing that makes small schools affordable. It is important in appraising this aspect of the problem to assess the issues carefully and sympathetically. All agree that small schools require less staff at their administrative, clerical and support levels. But the implications of the shift for the system and its staff must be reckoned with.

We do not take these issues lightly. There are more than 65,000 teachers and 4500 supervisors in a personnel system which has been managed centrally and largely bureaucratically for many years. The system is moving toward more local authority at both the school and local district levels. However, in what is probably a mutually reinforcing set of circumstances, most local authorities are not ready to assume the initiative for more flexible staffing that key innovators have undertaken, and most personnel understandably still look to central authorities and central unions to support or resist such flexibility. No one is preparing or training professionals on a large scale for new roles; few are engaged in the kind of collaborative rethinking that makes the alternative schools able to break the mold.

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[*] see "Advocacy and Architecture" by Jeanne Frankl in New Schools for New York, 1992; and PEA's "Small Schools and Savings: Affordable New Construction, Renovation, and Remodeling," 1992.

A new perspective is needed; it must be promoted and cultivated, listening to the people who will be involved in implementing change as well as garnering their interest in the opportunity for greater gratification that better, more effective schools will afford. Those who stand to lose by change which is too precipitate should be protected. New options should be provided for those whose expectations will otherwise be disappointed.

Recommendations

With this background, we have framed the recommendations of this report. Developed with substantial help from a group of school professionals, who were kind enough to read our findings and meet with us to discuss them, they are as follows:

- ◘ The City School District should convene unions, community school boards, district superintendents, parent and school advocates for discussions looking toward a widespread move to smaller schools and sub-schools:
  - • Discussions should focus on the value, feasibility, and implications for personnel and curriculum policies of such a move;
  - • They should use the devices of forums, focus groups, hearings and rallies to promote needed initiatives.
- ◘ The Board of Education should analyze and discuss publicly the fiscal implications of moving to more small schools, taking account of issues including but not limited to:
  - • direct cost savings realized through the small schools staffing patterns and programming strategies described in this study;

- other savings achieved by improving the climate of the school, as, for example, reduction in costs of deans, security services, metal detectors;

- potential long-term cost benefits of improved school climate and outcomes, including better attendance, lower dropout rates, greater student achievement, increased staff gratification, etc.

▣ The Board of Education and representatives of high school regions and community school districts should work together with teacher and supervisory unions, as well as the State Education Department, where appropriate, to address the personnel issues that a move to smaller schools will provoke. Among other things, they should:

- Develop new regulations and contract provisions that redefine the roles and options for supervisory service, by, for example:
    - Increasing the proportion of school heads or principalships relative to intermediate supervisory positions;
    - Arranging for APs-supervision to serve a number of small schools or sub-schools in an itinerant or advisory capacity;
    - Increasing, enhancing and diversifying the teaching, guidance, staff development and other responsibilities of APs-supervision;
    - Instituting new staff development programs that support current supervisors in assuming new roles;
    - Cooperating with universities to develop programs that prepare potential supervisors to assume new roles.

- Revise rules, regulations and contract provisions to endorse and encourage teachers' new roles in small school planning, student advising and guidance, curriculum development, staff evaluation, etc., by, for example:

- Developing career ladders that acknowledge special skills and competencies;
- Eliminating contractual restrictions on teacher participation in evaluation;
- Ensuring that certification requirements require teachers to fulfill multiple roles, teach more than one subject and participate in interdisciplinary programs;
- Instituting new staff development programs that support current teachers in assuming new roles;
- Cooperating with universities to develop programs that prepare future teachers to assume new roles and meet new certification requirements;
- Providing more school level discretion in staff recruitment and selection, to match schools with congenial staff;
- Developing strategies for sharing teachers of low demand subjects among different schools or houses.

APPENDIX 1:

Research Method, Interviewees and Questionnaires

Research Method

Two primary methods were used to generate the data, qualitative descriptions and recommendations for this report:

1) an extensive literature review
2) interviews with eighteen educators and educational professionals (see below).

The general interview questionnaire is presented in Table A, pages 3-4 below. Primary variables discussed to assess possibilities for small school affordability and possible savings were:

- school administrative organization
- school staff organization
- curriculum design
- functional tasks of personnel.

Follow-up interviews, involving these and other interviewees and new questionnaires, are detailed on Appendix 1 pages 5-8, below.

Some questions were tailored to a specific individual's expertise (e.g., individuals with primary experience in alternative schools were asked to focus on their alternative school experience, etc).

A guiding proposition was that smaller effective schools do not need to duplicate the same administrative and support personnel configurations that characterize large schools in New York City.

Primary Interviewees:

Gerald Freeborne
Executive Coordinator for the Teaching Professions
Education Department, State of New York

Jerald Posman
Former Deputy Chancellor of Finance
New York City Board Of Education

Seymour Fliegel
Senior Fellow, Center for Educational Innovation
Manhattan Institute for Policy Research
Former Superintendent, CSB District 4

Joan Carney
Coalition of Essential Schools

Robert Sarrel
Operations, High School Division
New York City Board of Education

Carmen Varela Russo
Executive Director, Division of High Schools
New York City Board of Education

Stephen Phillips
Superintendent of Alternative High School Programs
New York City Board of Education

Irwin Altman
Superintendent
Community School Board 26

Deborah Meier
Principal
Central Park East Secondary School (Alternative)

Alan Dichter
Principal
Satellite Academy H.S. (Alternative)

Gloria Rakovic
Principal
High School of Telecommunications Art and Technology
("Educational options" school)

Irene Fitzgerald
Principal
Morris H.S. (Regular H.S. w/House Plan)

Anne Cook
Co-director
Urban Academy H.S. (Alternative)

Nancy Mohr
Principal
University Heights H.S. (Alternative)

Edward Reynolds
Principal
West Side H.S. (Alternative)

Sharyn Wetjen
Principal
High School Redirection (Alternative)

Louis Santiago
Principal
Pacific H.S. (Alternative)

Cecilia Cullen
Principal
Middle College H.S. (Alternative)

Additional Information Sources:

Ron Danforth
Assistant, Education Data Systems
Education Department, State of New York

Claudia Merkel-Keller
Director, Department of Evaluations
Division of Operations, Research and Evaluations
State Department of New Jersey

Eileen Foley
Senior Policy Analyst
Office of Policy Management, City of New York

Primary General Questionnaire

1) What are the conditions/requirements that must be met in order to make a smaller school affordable?

2) Can you give a general description of an affordable small school?

3) Can large schools be organized to function the way small schools are organized to function?

4) What issues must be considered in order to divide a large school into two or more smaller schools? Specifically, what are the issues surrounding each of the following:

- administrative changes
- curriculum viability
- union regulations
- guidance and support personnel
- clerical support

5) What other elements would need to be considered and/or changed?

6) How has the house plan/alternative approach worked in your school with regard to:
-administration -curriculum -teaching
-guidance or support -Chapter I ?

7) Is the current school structure the one originally or ultimately sought? Is it a modification based on constraints encountered? What were/are those constraints?
e.g., internal political constraints, external constraints, parents, union, policies, Chapter I funds availability, budget?

8) What aspects of your house plan or small school most contribute to its economic efficiency? What aspects make it more costly compared with a traditional large school setup?

9) Given your observations and experience in running a house plan or alternative school, what in hindsight would you have done differently at the outset?

10) What should one keep in mind in creating a house plan or organizing a small school?

11) Are there ways to economize without changing the basic traditional structure? (e.g., Could a house plan be led by current staff? Which staff? Would you need to fill their existing roles with other personnel?)

12) At what levels could/should restrictions and regulations be removed to make small schools or house plans more affordable?

13) While attending to educational goals, what curriculum changes would facilitate creation of a smaller school in New York City?

14) What administrative changes or personnel reductions can you suggest that would allow one to operate a smaller school?

15) What clerical and/or office support could be combined or job redesigned without inhibiting the smooth running of the school?

16) What other factors do you think should be considered in creating a small school?

17) What are the implications of Chapter I funds for your school or house plan?

18) What is the purpose/function of assistant principals of supervision? Describe what they do?

19) Could assistant principals of supervision use their time in different ways? (e.g., more efficiently?)

20) Would it be possible for teachers or other school personnel to assume some functions of assistant principals of supervision? Why or why not?

21) If functions were redistributed among personnel would there be a reduced need for clerical support? How?

Follow-up Interviewees and Questionnaires

A number of follow-up interviews were undertaken to address questions that emerged as the research progressed. Below in three groups are the names and affiliations of the individuals involved and the questions they were asked.

Interviewees:

Douglas Skeet
Principal
Apollo Middle School
Rochester, New York
Apollo Middle School has 1200 students in four houses of 300 students each.

David R. McGuire
Principal
Albany High School
Albany, New York
Albany High School has 2,000 students in two houses of 1000 students each.

Follow-up questionnaire:

1) By whom are teachers evaluated?

2) Describe the evaluation process.

3) Who is responsible for ensuring that the curriculum meets state mandated diploma requirements for graduating from high school (or for ensuring students will pass competency based tests?)

4) Describe the hierarchy/organizational chart in your school.

5) What compensation plans exist to allow teachers to assume other roles in the school (administrative roles)? What percentage of a teachers time is spent on administrative tasks?

6) Are additional secretaries hired to provide administrative support to APs, deans and/or teachers?

7) Who is responsible for handling discipline problems in your school? More specifically, who is responsible for ensuring that student suspensions and disciplinary actions are within legal guidelines?

8) Does this individual receive compensatory time off or additional pay?

9) How would you describe your curriculum program? Traditional? Interdisciplinary? Combination? Other? Please explain.

10) How have your students fared academically with the program in current use?

11) What standards of comparison do you use to assess if your school is providing an effective education?

12) Are you familiar with Ted Sizer's "Less is more" concept? What are your views on this? How does it apply to your school?

13) What would be your concerns about reducing the number of coursed taught per day?

14) Do you have teachers cross-teaching or shared across schools? If so, for what subjects? What are the benefits and problems associated with this practice for your school? If not used, What are your views on cross-teaching? teacher sharing?

15) How many FT/PT security guards does your school employ?

16) What other steps do you take to ensure the security of your school?
Do you have metal detectors? Why or why not?

17) What has been your experience in the past year with incidents of violence or vandalism or weapons possession? Are these incidents rising? falling? the same? To what do you attribute this change (if any)?

18) What union requirements have hindered your ability to operate your school effectively? Efficiently (i.e., in terms of cost)?

19) How would you operate your school differently in the absence of union requirements?

Interviewees:

Deborah Meier
Principal
Central Park East Schools

Cecilia Cullen
Principal
Middle College High School

Nancy Mohr
Principal
University Heights High School

Stephen Phillips
Superintendent of Alternative High School Programs
New York City Board of Education

Follow-up questionnaire:

1) By whom are teachers evaluated?

2) Describe the evaluation process.

3) Who is responsible for ensuring that the curriculum meets state mandated diploma requirements for graduating from high school (or ensuring students will pass competency based tests?)

4) Do the APs in your school teach as well?

5) How many classes per day do your APs-supervision teach?

6) Do you teach as well?

7) How many classes per day?

8) Who is responsible for handling the discipline problems in your school? More specifically, who is responsible for ensuring that student suspensions and disciplinary actions are within legal guidelines?

9) Regarding above, how are individuals responsible for disciplinary action compensated (e.g., compensatory time off from classes, additional pay, etc.)?

10) What standards of comparison do you use to assess whether your school is providing an effective education?

11) How do you ensure that you meet state requirements? Who is responsible?

12) Are your students who pass state requirements for graduation comparable to students at traditional, academic-focus schools?

13) How many FT/PT security guards do you have in your school?

14) What other steps do you take to ensure the security of your school?

15) Do you have metal detectors? Why or why not?

16) What has been your experience in the past year with incidents of violence or vandalism or weapons possession? Are these incidents rising? falling? the same? To what do you attribute this change (if any)?

17) Do you have any current statistics on suspensions or acts of violence in your school? Do you know where I might obtain some statistics on other schools?

Interviewees:

Noel Kriftcher
Area Superintendent
Division of High Schools
New York City Board of Education

Irwin Altman
Community Schools Superintendent
Community School Board 26

Lester Golden
Director of High Schools
Council of Supervisors and Administrators

Follow-up questionnaire:

1) What is the purpose/role/function of a Subject Supervisor/ Assistant Principal for Supervision?

2) What do they do? Can you provide a job description?

3) Why do they need so much time to do it (i.e., that they can teach only 1-3 classes)?

4) Could teachers pick up some of these functions?

5) Which ones?

6) Why do they not now?

7) Which functions would teachers not be able to handle?

8) What do the secretary/s for APs-Supervision in large high schools do?

9) If teachers assumed some of these AP-Supervision functions, would they also need secretarial support?

APPENDIX 2 --

Additional Notes on Chapter IV, "Sources of Savings in Small Schools"

New Roles for Assistant Principals-Supervision

Based on our interviews and research, we observe that the need for full time APs-supervision in small schools, serving their traditional functions, is not absolute. As noted earlier, we believe a thorough reconceptualization of this position could remove an important fiscal constraint to organizing effective smaller schools in New York City.

The case for organizing small schools without traditionally deployed, full time APs-supervision can be made as follows:

1) The role of assistant principal for supervision is a purely administrative creation of the New York City Board of Education.

> According to the Education Department of the State of New York*, in examining all the 718 school districts in New York State no other district's high schools have an administrative position with the specific job description of assistant principal of supervision. This difference may be largely attributed to school size, since supervision requirements generally increase with size and New York City has the State's greatest concentration of large schools.

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* All information on State requirements, certifications and analyses of teacher time, here and in the following discussion, were obtained from phone interviews by the author with: Gerald Freeborne, Executive Coordinator for the Teaching Professions, and Ron Danforth, Assistant, Education Data Systems, Education Department, State of New York, 9 July 1991.

2) The AP-supervision role is not mandated by the State of New York, nor is it viewed as a requirement for providing effective education.

The only State mandated administrative personnel requirement for schools is that there must be one building site principal. Most schools in New York State have elected to have one assistant principal for administrative purposes, usually titled a vice principal.[*]

The functional requirements of AP supervision exist in all schools. These requirements, however, can be and are filled in a variety of ways in different schools, such as by teams of teachers or itinerant district personnel and, in some schools, by a departmental chair filled by a teacher or a certified administrator, depending on the percentage of administrative tasks required by the job.[**]

Overall, most department chairs in New York State high schools (excluding New York City) spend 75 to 80 percent of their time teaching, and are teachers.

3) APs-supervision teach only 1 to a maximum of 3 classes daily.

APs-supervision teach 1 to 3 classes depending on the number of teachers supervised (i.e., fewer teachers to supervise result in teaching more classes--2 or 3) and occupy the remainder of their time with supervisory tasks. See Table 1, following.

Many APs-supervision are classified as performing administrative/supervisory functions between 60 and 80 percent of the time. Because they clearly meet the 25 percent rule (see footnote on previous page), they must be certified. (Additionally, to be certified they must have taught for at least 3 years and pass 18 semester hours of college course work classified as administration.[58])

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[*] The vice principal or assistant principal of administration is primarily responsible for "carrying out the directions of the principal in the areas of school organization, guidance and education policy. In a business organization, the assistant principal would be the equivalent of the office manager, comptroller, or foreman."[59]

[**] The "25 percent rule" [NYCRR sec. 80.4(b)] states that if 25 percent of an individual teacher's time is spent performing administrative or supervisory tasks, then that individual must be certified by the State as an administrator.

4) The extra expense of APs-supervision may become unnecessary in a move to smaller schools.

The debate over the need for subject supervision in small schools may often center around an issue of "a few" or "none at all."

The median salary of a New York City subject specialist assistant principal is $56,719 (See Table 10, p.22 of report text). At that rate, seven subject specialists in primarily non-teaching, administrative roles cost almost $400,000 for a typical large high school. These salaries are paid for with tax-levy funding. Reducing the number of APs-supervision is a clear source of potential operational cost savings, because small schools do not require the full-time coverage of each subject area that large schools do.

Specifically, the teaching exemptions for assistant principals of supervision in New York City high schools, effective September, 1984 are shown on Table 1, following page:

Table 1

Teaching Exemptions for APs-Supervision*

a) A supervisor who supervises 5-13 teachers including the supervisor shall teach a maximum of three classes daily.

b) A supervisor who supervises 14-22 teachers including the supervisor shall teach a maximum of two classes daily.

c) A supervisor who supervises 23-32 teachers including the supervisor shall teach a maximum of one class daily.

d) A supervisor who supervises 33-42 teachers including the supervisor shall teach one class daily and be entitled to one teacher assistant for no fewer than one period each day.

e) A supervisor who supervises 43 or more teachers including the supervisor shall teach one class daily and be entitled to two teacher assistants for no fewer than one period each day.

f) A supervisor who is assigned two or more departments, or whose department includes staff in a main building and an annex, shall receive an additional teaching exemption of five periods a week. For purposes of the additional teaching exemption for a supervisor with two or more departments, a second department is defined as one with a minimum of five teachers, not including the supervisor, in an area having a significant and distinguishable difference in the nature of the instructional content being supervised.

g) In determining the number of teachers supervised, each regularly appointed tenured teacher supervised shall be counted as one teacher. Each regularly appointed probationer and substitute teacher shall be counted as 1.5 teachers. Each laboratory specialist assigned shall be counted as one teacher.

h) Every supervisor will teach at least one class daily.

Source: High School Memorandum #128, "Teaching Exemptions for Assistant Principals," Board of Education of the City of New York, memo dated June 14, 1984.

* Note: The above does not apply to APs-supervision and APs-administration for Special Education.

In New York City alternative schools, some teachers have administrative roles, such as coordinator. While this role does receive some compensatory time off, it is not of the magnitude or duration as in larger schools. Most alternative school teachers engage in some administrative functions.

Responses to this study's inquiry, "What constitutes appropriate and educationally necessary personnel in a small school?" (full questionnaires are attached; see Appendix 1)

As mentioned in the body of this report, many educators and alternative small school principals view the functions of subject supervision as required tasks, but do not view the position as a component of necessary personnel in a small school hierarchy.

Gloria Rakovic

> "You can't have an effective school without a whole school approach.... There is a need to eliminate the 'my department' syndrome that occurs when schools have subject specialists.... We need the role of Assistant Principal-Supervision, but not one for every department.... We may be able to do without an assistant principal in a smaller school."

Deborah Meier

> "Appropriate administrative personnel: a minimum of one full-time principal and one part-time assistant.... Subject APs are a New York phenomenon.... The removal of assistant principals in small schools would be a substantial efficiency."

Stephen Phillips

> "We don't need to cut functions, we need to make the staff more diversified.... Cut back on the assistant

principals.... Rather than a dean, let a family group teacher pick up some of those functions....

"The key to saving money in smaller schools is to generalize, to redefine what you do. For small schools, we should redefine the functions for costs.... Look at the alternative schools."

Irene Fitzgerald

> "The focus should be on reorganization, not spreading the spending base."

Seymour Fliegel

> "We need to move away from the traditional approach.... It's not working."

Lester Golden

> "Where there are small schools, obviously you would need less supervisors. That situation already exists. Smaller high schools do have less supervisors, and that was taken into account by the licensure of supervisors who cover related technical (math and science) and academic subjects (English and social studies), which because of state requirements are the largest departments in the schools. But if you would expect a social studies supervisor to supervise the content and teaching of math or Russian, you would be equating your expectations to a general practitioner in a hospital doing surgery or radiology on your child. Obviously, accommodations must be made for supervision in large and small schools."[60]

The work-hour basis. Golden argued that APs-supervision/ subject supervisors are less costly than teachers assuming their tasks. Subject supervisors, he said, have a 7-hour 20-minute contractual day compared with a teacher's 6-hour 20-minute contractual day, and subject supervisors work 193 contractual days a year compared with teachers' 186 contractual days. Additionally, he noted, supervisors do not have professional and preparation periods off as teachers do.

He stated his case this way:

> "Not too long ago, APs-supervision had the same work day and year as teachers. Today, the supervisors work a seven hour and twenty minute day and seven days more a year than teachers. The additional time was so they could do the work they were being required to do. Teachers on maximum earn $52,000 plus a year. Starting supervisors presently earn $54,000 plus a year; those on maximum (after 15 years as a supervisor) earn $60,000. On a work hour basis, teachers earn more than supervisors, and supervisors do not have professional periods and preparation periods, both usually referred to as "free" periods. Can supervisors do their functions/tasks in less time? The answer is no. If teachers did it, would it be cost effective? The answer is no."[61]

Despite Golden's analysis, the monetary case does not seem to justify additional, higher-salaried APs-supervision with 7-hour 20-minute days in a smaller school setting.

Determining the work-hour cost of subject supervision versus teaching depends on which numbers you use. Using 1990-91 median salaries of teachers and subject supervisors ($43,217 and $56,719 respectively), the median hourly wage rate would be $36.69 for teachers versus $40.08 for subject supervisors; in median dollars, this suggests that subject supervisors cost about $3.40 more per hour than teachers.

Per-session additional pay for a few teachers assuming extra tasks in a small school, or even additional teachers in lieu of subject supervisors (see Table 2, below), appears affordable.
As practiced in the alternative smaller schools and schools outside New York City examined in this study, only a few teachers require additional periods off within their regular 6-hour 20-minute day; The hourly cost differences noted above do not make any case that teachers are more costly in serving administrative tasks at the small school level. It must futher be noted that the complexity of the tasks themselves are reduced in a smaller school setting, where team planning is facilitated. Whether in planning a schedule, the curriculum, evaluation, generating and responding to memos, or coping with student problems, the face-to-face interaction small schools afford reduces internal paperwork.

As Table 2 suggests, one or even two additional teachers may be hired for the same costs as an AP. This table reworks the example presented earlier in the text's Table 10 (see report, p.22) by removing an AP-supervision and using the 2.7 units saved to hire two more teachers. This would cover the classes taught by assistant principals of supervision, and provide flexibility for allowing more teacher planning time. Cost savings would of course be addressed on a school-by-school basis, with the salary levels of teachers and APs-supervision evaluated to determine the efficiency and effectiveness of this option for each school.

Table 2

Hypothetical small-school reorganization of tax-levy personnel

School Size	750
Principal	1.79 units
AP-Administration	1.35
Guidance Counselors	3.51
Secretary	1.92
Teachers	39
Stock Handler	1
Total Units	48.57

Assumptions: 1) Average class size 20 students

Note: This table uses unit allocations based on amounts for regular high schools.

Security Costs, Discipline and Deans

Anne Cook

> "Money associated with security costs is an issue of big schools, not small ones. Security guards are a provocative presence -- they create a problem instead of offset one. Kids are often sent to alternative schools as a result of being 'expelled' from regular schools, but when you look at the monthly reports of where violent incidents happen, it's not in the alternatives."[62]

Steven Phillips

> "In the smaller schools, security personnel are proportionally staffed at or below the number needed at large schools. Small schools do not require the hall monitoring and internal security that the large schools require.... There are fewer disruptions."

Deborah Meier

> "In my school, there are two floors and four bathrooms; I have two security guards who mainly guard entrances. I can see everything.... Everyone knows everyone, and everyone knows me.... We don't need metal detectors [and] we don't use them."

Nancy Mohr

> "We don't have metal detectors, don't need them. ... Besides, in schools where they use them the students know when the metal detector vans have arrived.... It's a joke."

In terms of who deals with student discipline issues, the small schools studied do not assign these duties to a particular staff member, nor is there special compensation provided. At Apollo Middle School in Rochester, for example, its houses' vice principals are responsible for handling discipline problems in the house they individually oversee.

At Albany High School in Albany, the principal holds primary responsibility for handling the school's discipline problems.

At Central Park East Schools,

> "Every faculty member must know the rights of students and family.... When teachers are informed, it makes it possible for the principal to be supportive of the instructor. Ultimately, the principal is the expert on the rights of family and kids.... No one receives additional pay or compensatory time off for this task. Teachers have a need to know the rights. This function does not need to be isolated under one person in a small school.... Here, everyone knows everyone. The teacher that knows the student best is usually sent to deal with the student with the problem.... Here, someone always cares."[63]

At Middle College High School,

> "The [discipline] issue [in small schools] is not as large as they like to make it.... We have personal relationships with our students.... While the principal is ultimately responsible, everyone in our school is involved."[64]

At University Heights,

> "Our assistant principal of administration is responsible for legal issues.... Last year we had zero incidents.... Our school structure is preventative; it reduces discipline problems."[65]

Curricular and Program Implications

At Apollo Middle School, two of their four houses use integrated disciplines in double periods. A teacher serves as coordinator of the interdisciplinary piece (e.g. math/science), chairing a monthly meeting to discuss curriculum issues and to receive teachers' opinions and feedback on how students are succeeding. Evaluating student success through standardized tests is a district level function conducted by the central office's research and testing department. The district level office establishes educational objectives; the coordinator, in collaboration with other teachers, determines implementation strategies. As Apollo Principal Douglas Skeet puts it,

> "As long as we achieve educational objectives, and we do, district personnel leave us alone."

Clearly, this is just one scheduling/organizational option, but it exemplifies the kind of flexible approach needed to make small schools educationally feasible and economically affordable. Skeet and Allan Dichter, principal of New York City's Satellite Academy, argue that integrating disciplines should be simply one more option available to school-level administrators and teachers who believe it will achieve positive educational outcomes.

APPENDIX 3:

How do alternatives and smaller traditional schools view and conduct the evaluation process?

Follow-up interviews with Deborah Meier, Cecilia Cullen, Nancy Mohr, Stephen Phillips, Douglas Skeet and David McGuire resulted in the following view and approach to evaluation. It is one which suggests that teachers may contribute in important ways to the evaluation process, and that the role of assistant principal of supervision is not required for evaluation purposes.[66]

Evaluation as a tool for improvement, not as judgment.

Evaluation was viewed as an opportunity to improve teaching to support the schools' primary mission of providing an effective education. Specifically, in the schools of those interviewed, some form of peer evaluation is used in combination with other types of evaluation. For example, at University Heights, evaluation consists of a combination of peer evaluation, team leader evaluation and principal evaluation.

The peer evaluation and team leader evaluation is cumulative and the principal's evaluation is sumative. In other words, it is a group effort with the principal holding final decision making authority. As Nancy Mohr suggests,

> "The focus is on the job, not the person, which makes it less threatening.... The purpose of our evaluations is to improve instruction, not make judgments."

She went on to describe that in a smaller school, the collegial environment makes evaluation a learning process not just for the evaluated but also for the evaluator. That when teachers evaluate other teachers in her school, they look not only at ways to improve the teacher they are evaluating but also for what they can learn to improve themselves as teachers.[67]

> "The questions should be: How can teachers improve performance? How do we help people?"[68]

At Apollo Middle School, in Rochester, New York, the goal of the evaluation process is again to improve instruction. Douglas

Skeet, the principal at Apollo, has found that teachers take an active role in development and improving fellow teachers which he attributes to the treatment of teachers as professionals with direct responsibility for student outcomes, and higher decision making authority. Their school philosophy includes the conviction that

> "those that will be effected by decisions should be included in the decision making process."[69]

Deborah Meier suggests that "the evaluation issue is overrated." She noted that while many advocate against teachers evaluating teachers, "the belief that teachers will not evaluate teachers unsatisfactorily should be compared to the rate at which principals and assistant principals of supervision rate teachers unsatisfactorily." She stated that many principals and AP-supervision avoid giving unsatisfactory teacher ratings even when clearly called for, because to remove a teacher consistently found to be unsatisfactory requires (under union and state tenure laws) an extremely time-consuming and complex due process procedure.[70]

APPENDIX 4:

Alternatives and State-mandated Diploma Requirements

Interviewees were asked, Who is responsible for ensuring that the curriculum in alternative schools meets state mandated diploma requirements for graduating from high school (or for ensuring that students will pass competency-based tests)?

A sample of responses follows:

Deborah Meier:

> "Teachers do it (...) because of our small size... and the belief that teachers are intelligent professionals; they can read the requirements.... Teachers work in teams led by a team leader, who receives two compensatory periods off to facilitate curriculum development."
>
> "The New York City Board of Education is trying to solve bureaucratically what we solve just by being small."

Cecilia Cullen:

> "We have a curriculum committee made up of teachers."

Nancy Mohr:

> "We have a subject-advocacy role filled by a teacher who takes primary responsibility for ensuring curriculum viability in our interdisciplinary courses.... Teacher teams work together on the curriculum.... This can be done in a small school setting."

Douglas Skeet, principal of Apollo Middle School, an academic middle school of 1200 students in four houses in Rochester, New York (two houses have interdisciplinary curricula, the other two have a traditional curricular program):

> "Our district office has subject program coordinators that serve all the schools in our district. They meet with teachers to discuss desired objectives; however, the school can implement objectives any way they want.... In our school, teachers decide how to implement objectives; teams of teachers work together--

> led by a team leader who receives an annual stipend of $600 for work outside the school day--to achieve common curricular objectives. If something isn't working, teachers decide on new alternatives and teaching strategies to achieve curricular objectives."

David McGuire, principal of Albany (New York) High School, an academic high school of 2000 students in two houses that follows a traditional curricular program:

> "The district employs subject area administrators in six core specialties for grades 7 through 12, who serve all the schools in our district; further, the district employs K-12 directors that address issues of curriculum planning and other school related issues such as occupational education, health, public transportation, library and etc., Federal programs, etc..... These itinerant district employees provide needed unification and consistency. They provide an important external program evaluation and advisory role."

And, as Irwin Altman, Community Schools Superintendent of CSD 26, noted, the existing example of subject experts who "float" between schools during summer school sessions in New York City public schools, suggests a possibility for the regular school year.[71]

Further regarding educational outcomes, Nancy Mohr stated:

> "Our students are comparable to those in the academic comprehensives....The difficulty in comparing us has to do with our educational outcome measures."

As Deborah Meier said:

> "We're not using Regents....We support our kids' work like middle-class parents would....We believe that schools should be accountable for their the impact on the future....We are interested in getting our students into colleges or jobs....Our students develop portfolios and do mini-theses as representative work....We help them get interviews and complete applications for college."

Stephen Phillips suggested that while whether the alternative approach is better may not be the issue, a controlled research study could demonstrate to detractors what alternative principals already know: that the alternative mode is better.

APPENDIX 5:

High School Redirection Replication Project

In October of 1987 the U.S. Department of Labor put out a grant announcement for new schools, through which it would conduct a demonstration to replicate Brooklyn's successful alternative High School Redirection in seven cities. The competition was open to service delivery areas (SDAs) under the Job Training Partnership Act (JTPA) system, and local school districts had to be listed as co-applicants. The grant announcement required that the following elements of High School Redirection be replicated in the demonstration:

1. **Open Admission.** Any applicant will be accepted, if space permits, regardless of the applicant's past truancy or academic problems.

2. **Enrollment Based on Referral, Not Location.** Youth will be referred from all parts of a school district.

3. **Separate Location from Regular High School.** The schools will not be located within or near a regular high school.

4. **Size of 500 Students.** Schools will aim towards a size at maturity of approximately 500 students - small enough to provide a personal atmosphere, but large enough to be self-supporting with average daily attendance funds.

5. **Location in a Poor Neighborhood.** Schools will be located in a poor neighborhood so as to provide a base of students, and also provide an educational resource for the neighborhood.

6. **STAR Program Component.** Roughly one-third of students in the new school will be enrolled in a "STAR" program, aimed at those in need of intensive reading and writing instruction.

7. **Operation by Board of Education.** Schools started under the grants will be operated by the local Board of Education, staffed by Board of Education supervisors and teachers, and provide for regular high school diplomas.

8. **Independence in Operation.** While these schools will be

operated by the Board of Education, they must also have some degree of autonomy in setting their own policies and selecting staff.

9. **On-site Day Care.** By the second year of operation, schools will have a day care center in place under the supervision of a licensed professional.

10. **Limited Extracurricular Activities.** Schools started will not aspire to be comprehensive high schools with numerous sports and extracurricular activities.

Selection of sites was based upon local need, understanding of the project, commitment to continuing the school on a permanent basis, community support, how the school district planned to select a supervisor and teachers, and plans for finding and rehabilitating space for the school. Sites applying also had to agree to participate in an evaluation of the schools using random assignment of applicants during the third and fourth years of operation.

The cities receiving grant awards of $800,000 over a two-year period to start these schools were Cincinnati, Denver, Detroit, Los Angeles, Newark, Stockton and Wichita. The Academy for Educational Development (AED) was awarded a contract to oversee the implemention of the schools.

Description of Replication Sites

Cincinnati

The Cincinnati school is located in a part of the city populated mainly by Appalachian whites. About 75 percent of the students it serves are black and come from other parts of the city, while the remaining students are whites from the neighborhood that surrounds the school. Forty percent of the students entering the school read at the sixth grade level or below. The school is housed in an old school building that was renovated for the project. The building has a capacity of approximately 250 students. A new location will be found as the school expands beyond that number. The school has developed an interdisciplinary, thematic curriculum which is coordinated by staff in a daily common prep period. The school also has an off-site child care center that is used exclusively for the children of its students.

Denver

The Denver school started out with a ninth grade entering class the first year, and expanded in the second year as these students moved to the tenth grade and a new class of ninth graders entered. The school will similarly expand for the next two years until it reaches a full enrollment at grades nine through twelve. The student body is ethnically diverse: 51 percent Hispanic; 27 percent white; and 17 percent black. It is located in an attractive school building. The Denver school uses experimental approaches to curriculum and instruction, emphasizing effective and experiential learning. It also uses family group classes, called an advisory group, similar to the High School Redirection model. It has a children's center which accommodates 20 children.

Detroit

Detroit was the last of the seven sites to start their school. The school opened in February 1990 with approximately 130 students who were referred by three city high schools. Each of the referring high schools were quite large - between 1,500 and 3,000 students. Students were referred to the new school because of poor or failing grades at the previous school, high truancy, or low reading levels. Many entering students have reading scores below the fourth and fifth grade levels. The school is located in a large building that also houses a middle school, a grade school, and a day care center.

Los Angeles

The Los Angeles school is located in the Watts neighborhood and is adjacent to a large public housing project. It is housed in a building on an elementary school grounds, as well as two bungalows also placed on the school grounds. It is the only one of the seven schools to be operated by an adult education division. It uses contracts negotiated with each student as the basis of its individualized instruction model that allows students to work at their own pace and accumulate credits at an accelerated rate. The school is developing various links with the JTPA system, including work experience positions during the school year. The community in which the school is located has a severe youth gang problem, and this has complicated the development of the school. Youth served by the school typically enter with very low reading levels.

Newark

The Newark school got off to the fastest start of the seven sites. It has a school building itself, and a full complement of teachers and counselors. Like High School Redirection Brooklyn, the Newark school has family group classes in order to assist students in building bonds among themselves and to the school. The school has a full-time work/study coordinator who places students in jobs and supervises them on a regular basis. It also has links with local institutions including the New Jersey

College of Medicine and Dentistry, Kean College, and Essex Community College. The school provides parenting classes for students, and will soon have a day care center.

Stockton

Stockton serves a diverse student population - about 40 percent of students are Hispanic, 30 percent are white, 20 percent are black, and 10 percent Asian American. The school is housed in a set of five bungalows. Due to limited space, half of enrollees attend a morning session, and the other half attend an afternoon session. The school is located on grounds adjacent to a large vocational training center; many students enrolled in the alternative school also take classes at the vocational center. The Stockton school was the first of the replication sites to establish a child care center, which currently accommodates 40 children.

Wichita

The school started in Wichita is one of three alternative schools operated in the city. It shares a recently renovated school building with district administrative offices. Its student population is roughly 55 percent white, 33 percent black, and 12 percent other. The school has developed a work/study component that allows students flexibility in attending classes to fit work hours. It also has an evening session. The school has established close links with JTPA, which funded a summer education and employment program at the school. The school has a child care center that accommodates 40 children.

Source: U.S. Department of Labor Employment and Training Administration, A Guide to H.S. Redirection (Washington, D.C. March 1991).

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FOOTNOTES

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15 Russo interview.

16 See Appendix 1 for complete lists of interviewees.

17 Deborah Meier, Principal, Central Park East Secondary, interview with Heinbuch, 17 September 1991.

18 Altman interview.

19 culled from many interviews.

20 Stephen Phillips, Superintendent of Alternative High School Programs, New York City Board of Education, interview with Heinbuch, 26 Nov 1990.

21 Lester Golden, 13 September 1991 interview.

22 Meier, 17 September 1991 interview.

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Continued from inside front cover:

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